

# MODEL CAR *Science*

APRIL 1970

## IN THIS ISSUE:

Build A Tyco-powered H.O. "Funny Car"

Add "Steering" To MPC's Dragster Kit

Lowering and Sectioning Revell's '53 Chevy



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# MODEL CAR *Science*

APRIL, 1970  
VOLUME 8, NUMBER 4



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12011 San Vicente Blvd.  
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MODEL CAR SCIENCE is published monthly by Delta Magazines, Inc. Executive offices, 12011 San Vicente Blvd., Los Angeles, California 90049; Subscriptions, Delta Magazines, 131 Barrington Place, Los Angeles, California 90049. Telephone 213-476-3004. Single copy price: 50 cents. Second class postage paid at Sparta, Illinois. Subscription rate: 12 issues for \$5.00, U.S. and possessions; 12 issues for \$6.00, all foreign countries and Canada. All editorial

contributions and advertising inquiries should be addressed to Raymond Hoy, Editor and Advertising Manager, P.O. Box 1821, Thousand Oaks, California 91360. Telephone 805-495-7282. Unsolicited contributions should be accompanied by return postage and Delta Magazines, Inc. assumes no responsibility for loss or damage to such unsolicited material. Printed in U.S.A. Copyright 1970 by Delta Magazines, Inc.





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# MODEL MAIL

## HERE'S A TIP

If you want one of those wild custom paint jobs like you see on funny cars, try this. Buy a cheap lace doily at any dime store. Stretch it out over the top or whatever part of your car you want to paint. Spray it with the color of your choice, let it dry overnight, and spray the surface with several coats of clear lacquer. Take the doily off after you have sprayed the surface. This creates an unusual design.

Tim Crete  
Miami, Fla.

Thanks for the tip, Tim.

## WHAT KIND OF PAINT?

What kind of paint should I use on clear plastic slot car bodies? A local raceway sold me enamel paint, and as your magazine predicted, it chipped off each time I raced.

Gary Timko  
Cleveland, Ohio

A long-time favorite paint for use on clear plastic bodies has been Ulrich's bottle paint. Most hobby shops carry it (although, it seems, few department stores do). This goes on easily, covers well and just plain refuses to chip. If you can't find it at your local store, send for a mail order catalog from

Auto World (they advertise in MCS). The AW catalog carries the Ulrich paint.

## A BUDDING GEORGE BARRIS

Thanks for your great article, "Spray Can Artistry" in the January 1969 issue of MCS. I know I'm a little late telling you this, but I just got around to spraying a model since getting that issue. I remembered seeing the article, so I dug it out and followed the instructions. Man, did I get a nice finish! I used Testor's No. 1203 red on a 1970 Chevy SS Impala. I had never been able to put a good finish on a model car before, until I followed the instructions in that article. Keep up the good work. I enjoy your magazine very much.

William Johnson  
Staten Island, N.Y.

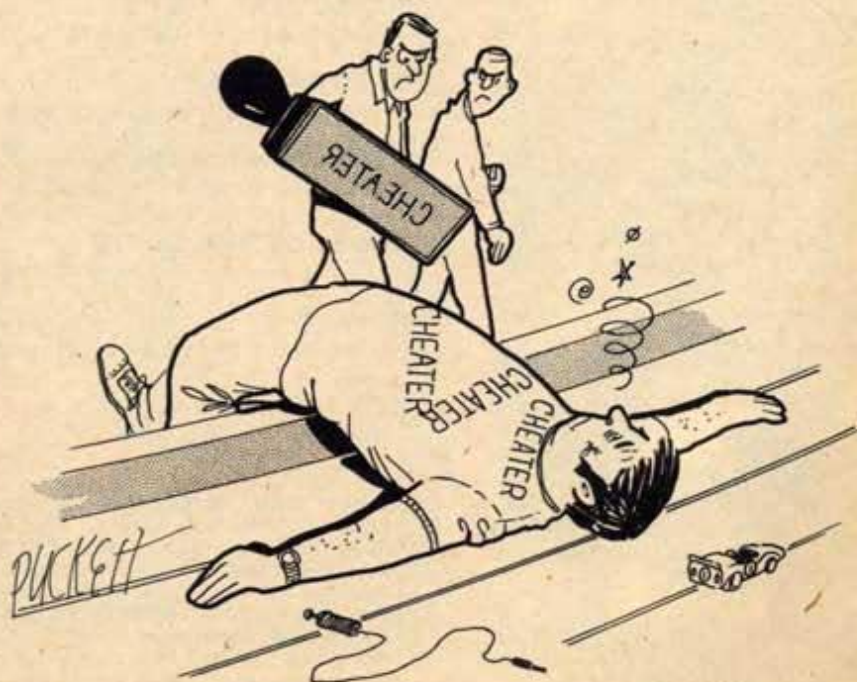
Glad to hear the article helped you, Bill. Any of you readers who want to obtain the Jan. 1969 issue (or any other issue for that matter) can do so by sending 50 cents with your instructions as to the exact issue you want, to: Back Issue Department, Delta Magazines, 131 S. Barrington Place, Los Angeles, California 90049.

## WHERE TO GET PERMASCENE

In your January issue of MCS you mentioned "Permascene." Where can I obtain some of this? I like the way you've been putting out H.O. articles; keep it up.

Larry Barker  
Rhein Main, Germany

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*Auto World, Larry. Check their ads in this issue. Send for a catalog and your problems are over. They carry everything.*

## A FRIENDLY PLACE TO RACE

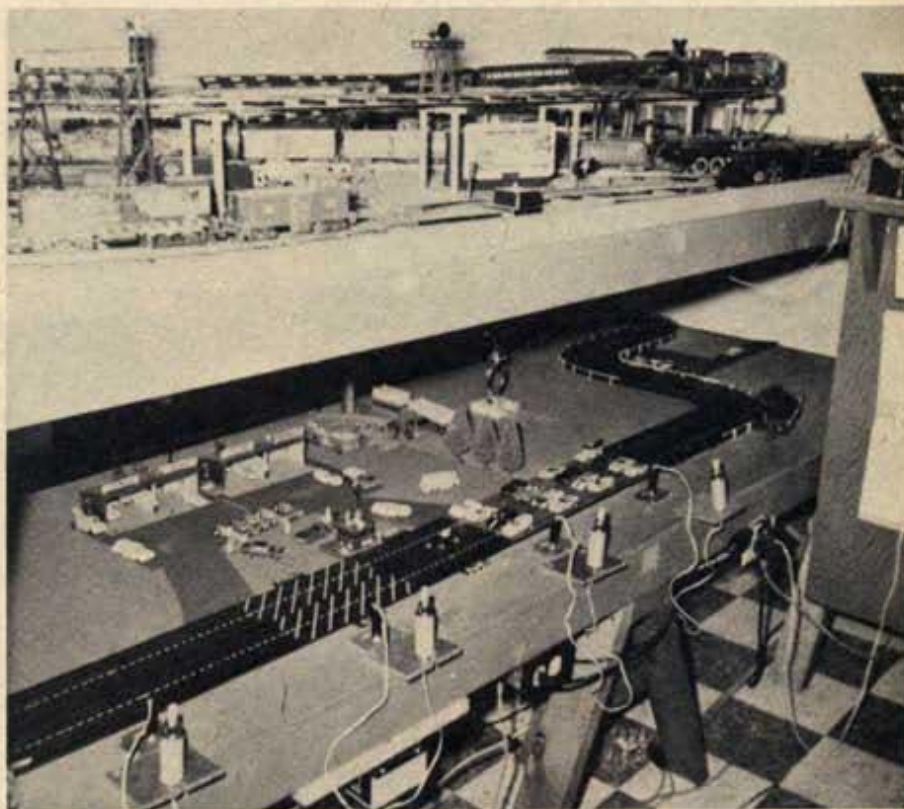
Enclosed are some pictures of my H.O. model car raceway, which I designed and built myself. Many a friendly race has been run on this track. It's a 4-lane, 1/4 mile (scale) layout with

automatic lap counters. The one lap record is 4-5/8 seconds; the five lap time is 28 seconds.

The top level on this table is my American Flyer train set. I have eight trains, also.

Don Gove  
Monpelier, Vt.

*Great track, Don. If any of your friends get over-zealous when they're racing, we just hope they don't get to the railroad crossing at the wrong time!*



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## IT'S GETTING HARD TO BELIEVE

Here's a tip for H.O. buffs who think their H.O. tires are too thin. Get a pair of typewriter rollers and cut to the thickness desired. It works great and several tires can be made from two rollers. They fit the hubs perfectly.

Raymond Long  
Cross City, Fla.

*Wow, talk about ingenuity! We haven't tried it ourselves, guys, but if you want to try a wild experiment, take Ray's advice and see if it works well for you.*

## BIG, BIGGER, BIGGEST!

More, more! Man, I dig those fantastic articles on the big 1/8 scale (and similar) stuff! The amount of detail that can be added (and for that matter, which comes as standard equipment) staggers one's imagination.

Jon Erickson  
Tampa, Fla.

*Check Millsbaugh's Nissan story in this issue, Jon. We agree with you 100*



# **NEW NAMRA**

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percent, and will continue this series as long as we keep getting mail like yours.

### CAN SOMEONE HELP?

I'm trying to locate some 1/25 scale models that I had in my collection way back when (and foolishly gave away some years ago). These are the cars I need: 1955-57 Pontiac Star Chief 2-door hardtop; 1955-57 Olds 98 Holiday 2-door hardtop; 1955-57 Cadillac Coupe de Ville 2-door hardtop; 1055 Ford Fairland 2-door hardtop; 1955-58 Mercury Montclair 2-door hardtop; 1957-58 Chrysler New Yorker 2-door hardtop; 1957-58 De Soto Fireflite Sportsman 2-door hardtop; 1957-59 Plymouth Belvedere/Fury 2-door hardtop; 1957 Dodge Custom Royal Lancer 2-door hardtop; 1958 Edsel Citation 2-door hardtop. Some of these were made by AMT, while others were made by Revell and Jo-Han. If anybody can tell me where I can buy a few of these models (in hobby shops, etc.) I'd surely appreciate it.

Dave Robinson

3927 N. Sherman Blvd.

Milwaukee, Wis. 53216

Can anyone out there help Dave?

### HOME TRACK INFO

I want to build a small home track. Unfortunately I don't have the foggiest idea how to go about it. Can you help?

Philip Michelson

Chicago, Ill.

We've recommended "The Art of Track Building" before, Phil, and we recommend it now. It's a great little book which gives complete "how to" information in photos and drawings, on how to build 1/32-1/24 home tracks. Wiring diagrams and a book of 12 scale home track drawings are included too, all for \$2.00, plus 50 cents postage. Order from Pacific Publishing Group, Box 1821, Thousand Oaks, Calif. 91360.

### MORE CUSTOM STUFF PLEASE

I'd like to see some articles on bodywork (chopping, sectioning, dechroming, etc.). Some of us out here enjoy real radical stuff you know.

Harry Janes

Milwaukee, Wis.

Well, we've got *Brick Price* chained up in the dungeon right this minute, Harry. He's finishing sketches of a radical custom article that will come to you in three parts, very soon. Meanwhile you can get a start "warming up" with the articles in this issue which deal with adding steering to MPC's dragster kit, and lowering and sectioning Revell's '53 Chev.

### READER'S "RIDGEROUTE RACEWAY"

After seeing your "Ridgeroute Raceway" series, my nine year old son, Fred, and I had to give it a try. Permacene and H.O. concrete blocks were not available so we used plaster and grass. We have not been able to locate any trees yet; all we've found is lichen. This is our first effort at scenery and landscape building. We think we could do much better with a second effort, but we're pleased anyway. We certainly agree with you that it is great fun to drive this layout. We added a couple of crossovers, which add a degree of difficulty. We could have saved \$5.00 and ten hours work if we'd thrown away the white pine board and glued and screwed scabs at the joints, and just laid it out on 1/2" plywood and cut it out. We hope to add a pit area and new foliage. Anyway, we think it's great, and thanks for the plans and photos which made it possible.

Eugene & Fred Voigt

Defiance, Ohio

Thanks for letting us see your track, fellas. It really looks great. (Confidentially to our other readers: that's not a 1/24 scale bust of Buddha sticking up over the far end of the table in the photo, it's good ol' Fred, one of the co-builders of the track.)





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# THE TECH SHEET

A couple of issues back I promised to test the new Tyco car when it was available. In the March issue you saw pictures of this car on Brick Price's Ridgeroute Track, and as Brick pointed out then, the Tycopro is the fastest ready-to-run car on the market, and even went faster than his highly-modified Phase IV car! The happy part of this story is that the Tycopro car is not only faster but is also cheaper than buying add-on parts to make up a modified Phase IV-type car.

Technically, the stock HT-50 Mabuchi motor in the Tyco car is the fastest, strongest and best of the H.O.-sized motors due to a little hotter winding and bigger, stronger magnets than the rest. For instance, the R-1 motor I showed a picture of a few months back had a 20 ohm armature. The Tyco cars have a 13 ohm armature, although both motors look exactly alike. I might point out that there are other motors which look similar to the HT-50 Mabuchi, but they are, in fact, made by a different company, also in Hong Kong (namely the Hitachi motor in Bachmann cars).

The specs on the Tyco motor shows it to have 250 turns of 8 mm. wire (our wire size would be between No. 37 and No. 38 gauge; actually a little closer to No. 37); gives 13 ohms of resistance on each pole. The rpms have given me some trouble in trying to measure them accurately, due mainly to the motor's small shaft diameter, but average figures would be about 38,300 on 13-1/2 volt battery power and 52 to 53,800 on a powerpack delivering around 18 volts. This is free-running rpm with no load, remember, and I'm taking this as an average because I've seen a bit over 42,000 on one motor when on 13-1/2 volts. This variation is normal, and with some fine tuning it would be possible to make almost any motor exceed this 42,000. The figures I quote here are for out of the box cars, in order to give a more realistic picture of what to expect from your car as you buy it.

With the standard 6 to 19 gear ratio (3.16 to 1) the car shows 16 feet per second on the dyno at 13-1/2 volts. To give you some idea of how this com-

pares with other cars, I could only get 12 feet per second from a very highly modified rewind regular H.O. car (which somewhat confirms Brick Price's experience with his Phase IV car being slower than the stock Tyco).

If you consider performance on a scale 1/4 mile dragstrip, I come up with a figure like 1.4 to 1.5 sec for the 14 plus feet of straightaway. The motor, incidentally, peaks out (top rpm and top speed) after about 15 to 16 feet with the stock gear ratio. If we were to convert the dyno figure of 16 feet per second on 13.5 volts to a powerpack voltage of 18 volts, it would mean something over 20.5 feet per second going down a straightaway longer than 16 feet.

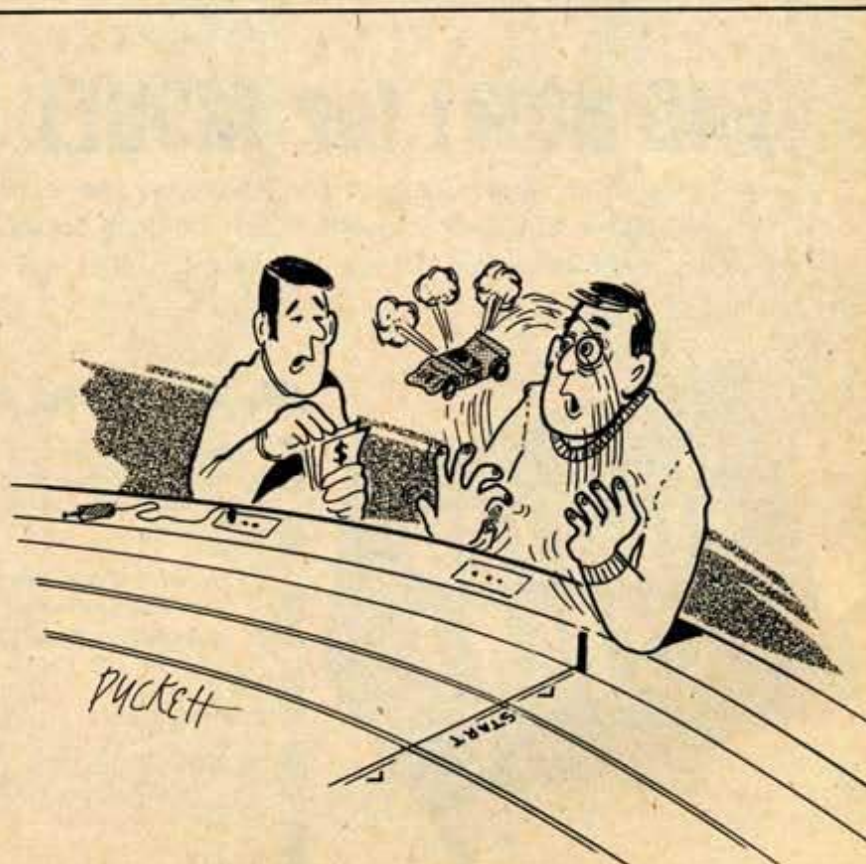
To state this another way, it means the car would accelerate for 16 feet and then cover over 20 feet in the next second of elapsed time. We'll explore the acceleration aspect later, when we deal with handling this speed.

So far I have dealt with specifics concerning the car's performance capabilities. I can not stress too much the need to follow the instructions in the trouble shooting and maintenance pamphlet which comes with the Tyco-pro cars. The cleaning and trueing of tires and the big black letters saying "DO NOT OVER-OIL" are to be followed to the nth degree.

As I view this car in the overall H.O. scene, I am forced to come to the conclusion that for once the average driver for the first time is going to have to really "drive" this car in order to control it. The Tyco car, as it stands in stock form, can not reach anywhere near its full potential on a small home track (4'x4' or 4'x8') and only on large layouts with 16 foot (or longer) straightaways does the car come into its own. Look at those dyno and dragstrip figures again.

The days of "punching" a controller all the way (as the average driver did with slower H.O. cars) just won't work with the Tyco car. On short tracks (4 x 4 sheets of plywood) with flat sharp turns, the controller will have to be using only the first half of the resistor windings, and the driver will have to "feather" the trigger, using a lot of brakes to prevent deslotting. The car has good brakes as is, and shimming the magnets closer with strips from a soup can would improve them, but at the same time lower the top rpm. This all sounds fine, except this shimming also raises the torque. As a result, you'll get more wheel spin and deslotting if you "punch" too suddenly.

I experimented with some smaller sponge tires, sanded down, and handling improved a little on the corners,



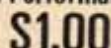
"You wanted to buy my hottest car, didn't you? Well, that's the one with the seized armature!"







## RARE COLLECTORS' ITEMS!



12/Model Car Science



It's a two-fisted super-car killer...a brand new, different and exciting fun machine by Tom Daniel, who will dare anything to give you some extra fun!

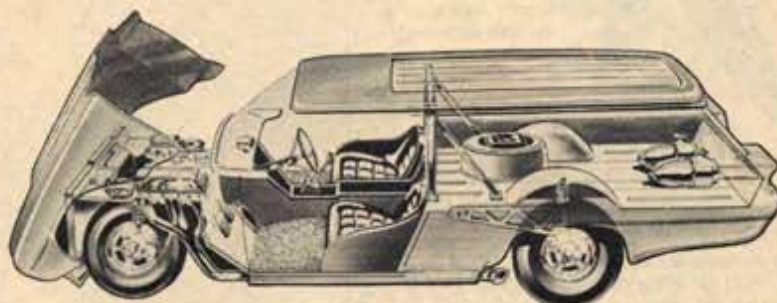
# Street Fighter

1/24 Scale



This super-car killer by Tom Daniel, famous west coast custom designer, is a swinging model of a new breed of street machines. Sure, it looks like a peaceful clean semi custom. But punch the "go" pedal and look out. This lil' old fun machine loves to catch Hemi's, GTO's, Roadrunners and other "muscle" jobs at a traffic light and then . . . BANGO!

Built around a '60 Chevy sedan delivery body, the Street Fighter sports a Z/28 Camaro motor, custom side exhausts, front end spoilers, side scoops and rear flared fender wells. Hurst "T" shifter, plush boat type buckets, roll bar, a tinted roof window, spare tire,



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## TECH SHEET

as they would not be affected by the raised pick-up rails as much as the stock tires. But the improvement was very small. Next I tried using some tire goop on the sponge tires. This was not only a mistake, but a big mess also. It meant cleaning the track completely to get the "stuff" off. On short tracks the optional 6 to 24 (4.1 to 1) gear ratio would probably be better, but these were not available for testing. I imagine the lower gear ratio would contribute to wheelspin, because the stock tires and gear ratio are almost at the limit of adhesion now.

The "jacking" of the front wheels I did do, as recommended in the Tyco booklet, and it did help cornering. I found by adding more lead weight at the rear pan, under the back axle, and on the pick-up, made the car handle quite a bit better. I recommend this for people with smaller tracks.

I added as many pure lead weights as I could get on to the pick-up, and

bent the metal pick-up wipers up a bit more than shown in Tyco's instructions. I added this weight so I could get an easier-driving car. True, it cut down acceleration some, but the improved handling more than made up for any losses.

There is one more modification you might want to try, but this is at your own risk and that is to warm the bottom of the blade which fits into the slot and make slightly wider at the bottom than at the top. This would give the blade a shape somewhat like a jet flag, as used in 1/24th racing. Heating the pickup blade is risky business, and must be done with a clean soldering iron. You can do this heating and distorting of the plastic by making one very quick swipe across the bottom of the blade if the soldering iron is really hot, or go at it more gently if the iron has just been plugged in.

You will note that I have not recommended either rewinding this motor or grinding out the body on the inside to make it thinner, and I have not, for obvious reasons. First of all

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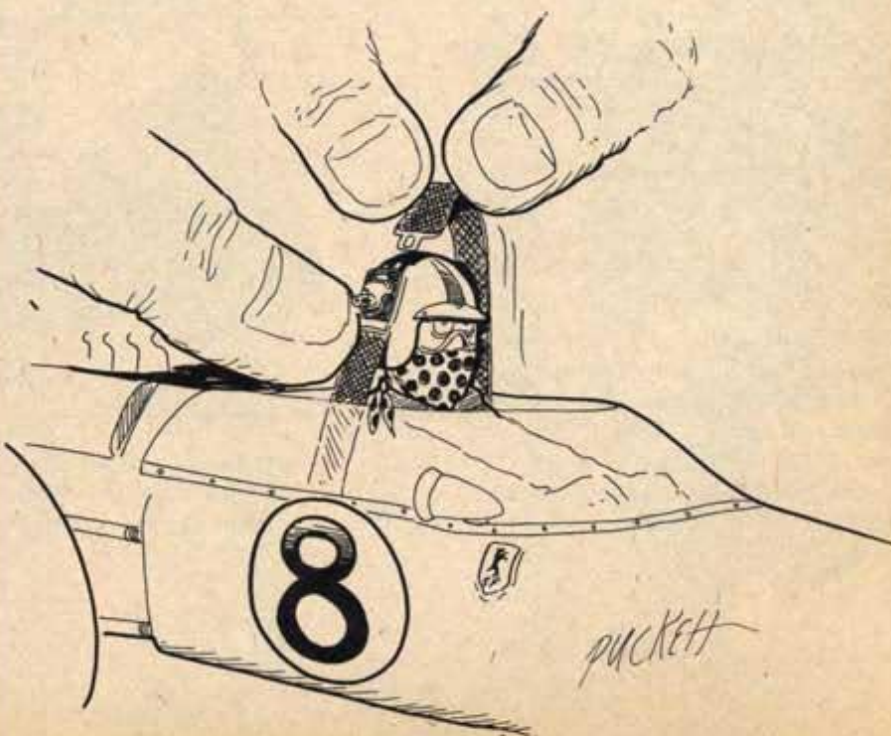
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the motor is a handful to drive now, just in its stock form. The next larger size wire would be No. 36, and it would take about eight feet wound on each pole to make a decent rewind. I would think it better to fiddle around with the car in stock form until you get the thing to really handle well before ever thinking about rewinding.

Lightening the body does not seem practical to me because the plastic is quite thin, as is, and one touch of a Dremel grinder wheel going at 27 to 30,000 rpm would put a hole in the plastic quicker than the wink of an eye.

As to silicone-type tires being used in place of stock Tyco tires and wheels, I'll try it eventually, I suppose, and I'll be likely to go to a small silicone like Champion's when I do (small to lower C.G. and get lower overall gear ratio). But first I want to really give the stock tires a good long test to obtain a valid evaluation. I epoxied one set of tires to the rims and used contact (Wilhold's) cement on another car's rims and tires. I must admit I'm not too sure it was nec-

essary, because I could not detect any slippage just the way they came out of the box.

I could probably come up with a few other little suggestions about this car, but most of them have been covered quite adequately in Tyco's manual.

I, for one, am very happy to see this new car come on the market, and my interest in H.O. scale has been given a large boost as a result of this car. Now I feel more like racing at home on my own test track rather than racing at commercial raceways with one of the larger scales. I think other drivers will feel the same. Who knows, this Tyco car could spark the return of drivers who dropped out of slot racing because of the high cost of racing in the larger scales!

I know the Tycopro car is only the beginning of a new generation of H.O. scale cars, because I've heard of other companies that plan on marketing Mabuchi-powered cars, and all at the same four dollar cost.

The future sure looks bright for H.O. scale buffs!



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April 1970/15





# RAIL JOB!

By Robert Schleicher

## HOW TO ADD STEERING TO MPC'S DRAGSTER

"The Top Rail Dragster of 1970" just has to be the title to be bestowed on Don Garlits' newest strip scorchers. The car is fully capable of 240 mph speeds and six-second times over the quarter mile; and it looks it.

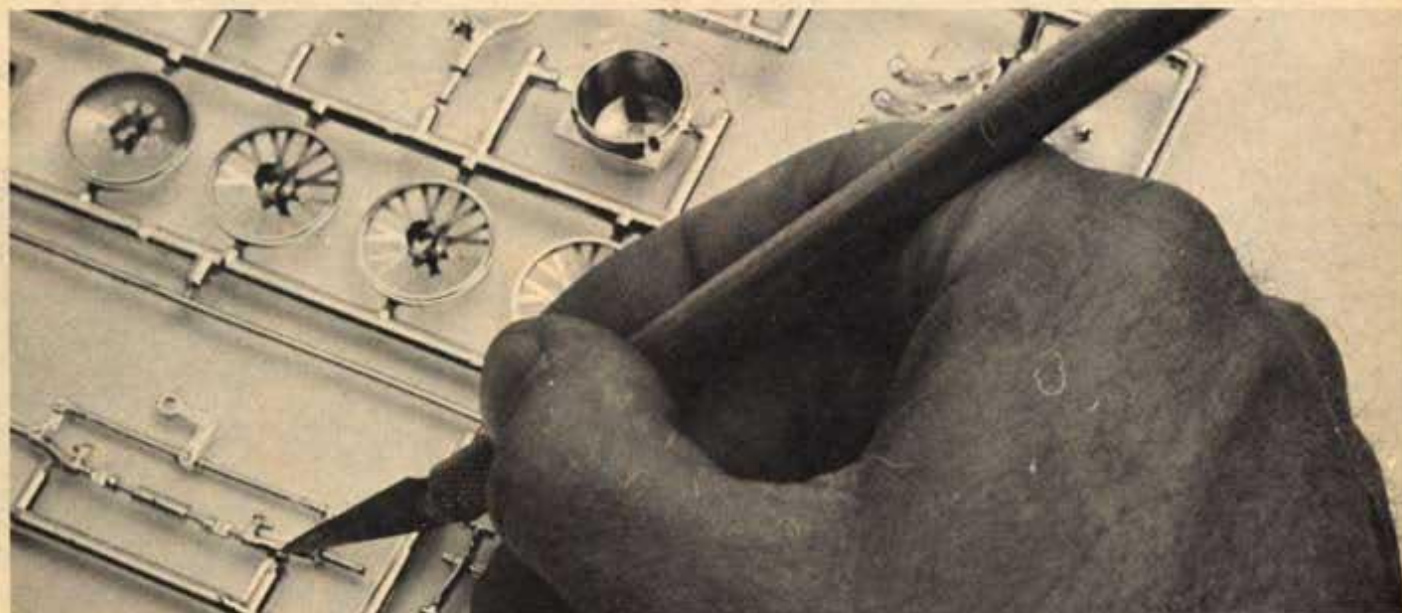
For a change, there's a kit available for the car just a few months after the

real car was ready to run. MPC has their 1/25 scale model on shelves across the country right now, and it is wild! All of the major details of Garlits' real car are included in the kit, with nice miniature moldings like the weighted right front wire wheel, flexible plastic seat and blower drive belt,

soft tires, and correct color decals. The major portion of the complex chassis is a single piece in the kit, to make assembly quicker and stronger.

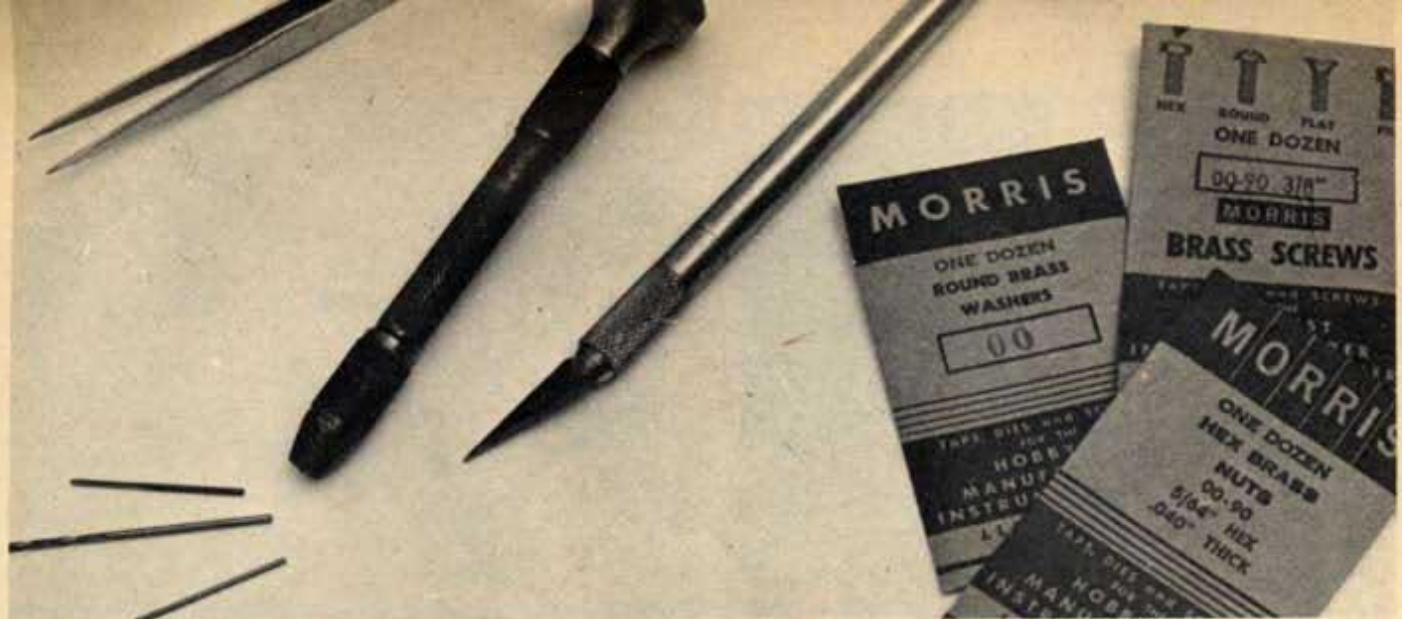
Working front wheel steering will add extra points, at any model car contest and give you the super satisfaction of having done something more to the model than just carefully assembled the pieces. The modifications we show for MPC's Garlits' Wynncharger show up especially well on a car with exposed front wheels and axle. Similar steps can be followed, to add working steering to almost any 1/25 scale or larger kit. You'll need to obtain some special drills and screws from a hobby shop specializing in model railroad equipment. A number 60 and a number 56 drill bit will be needed, together with a No. 00-90 tap (for cutting threads to match the steering's pivot screws), a hand drill called a "pinvise," tweezers, a razor saw, and a hobby knife. If you have to buy the drills, the tap and the pinvise, the total bill will be less than \$5. And all of these tools will be useful in adding bolt-on detail to other models.

The tiny bolts we have used for steering pivots are No. 00-90 hex head, 1/4" long. You won't need them for this job, but we'd recommend that you buy a dozen No. 00-90 nuts and No. 00 washers so you'll have all you need to bolt down any other details. These same size nuts and bolts would make nearly scale lug nuts and bolts for a removable wheel. They're small enough that almost any part on the model car could be made removable, held on by these No. 00-90-size nuts and bolts.

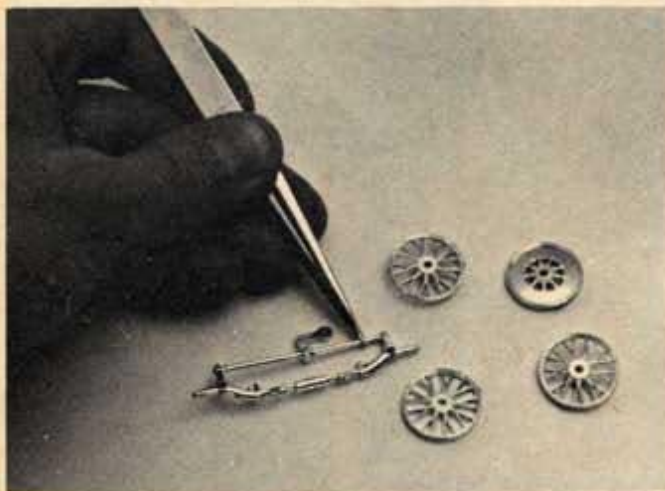


The addition of working steering to any model car won't alter the assembly sequence much. Carefully cut front axle parts away.

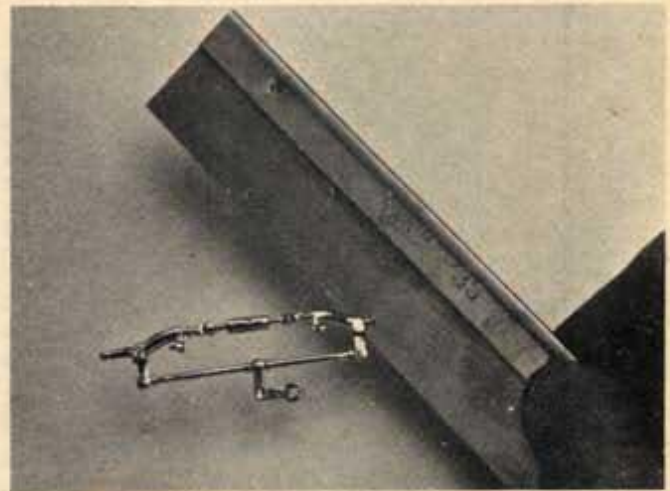




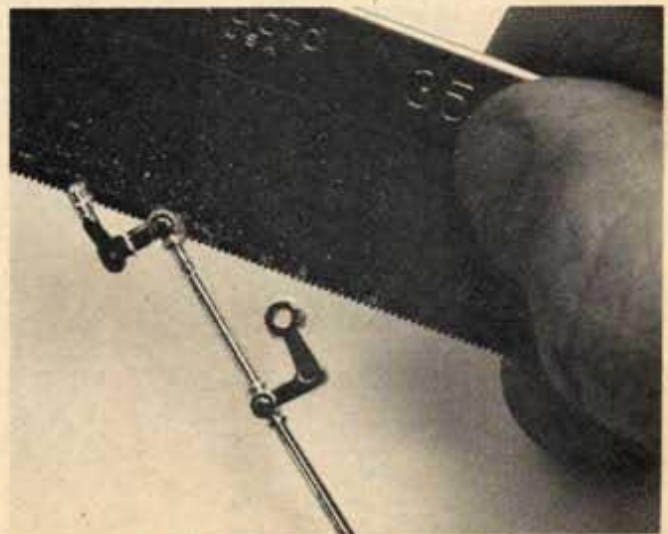
Jeweler's-size No. 00-90 screws are used as pivots for this working steering modification. Model railroad hobby shops can supply them.



Only the front axle need be modified to adapt working steering to the MPC Garlits Wynnschager kit. Text lists all tools.



The first step is to carefully cut through the molded-in steering knuckle. Use a razor saw and cut each side at exact angle.



Steering arm link (across back of axle) is cut half-way through at each end's pivot point. Do not cut center pivot.

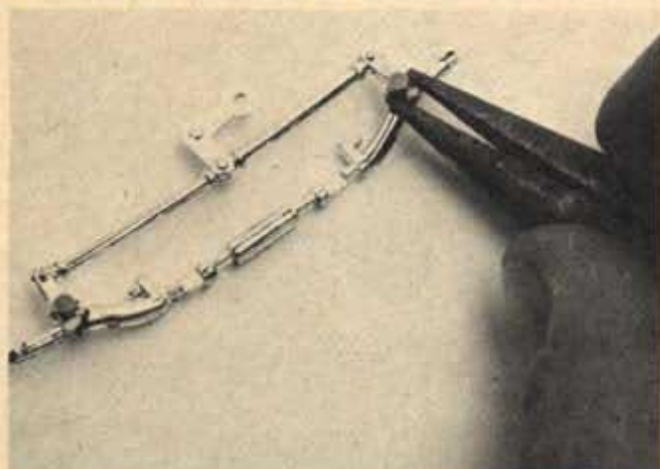




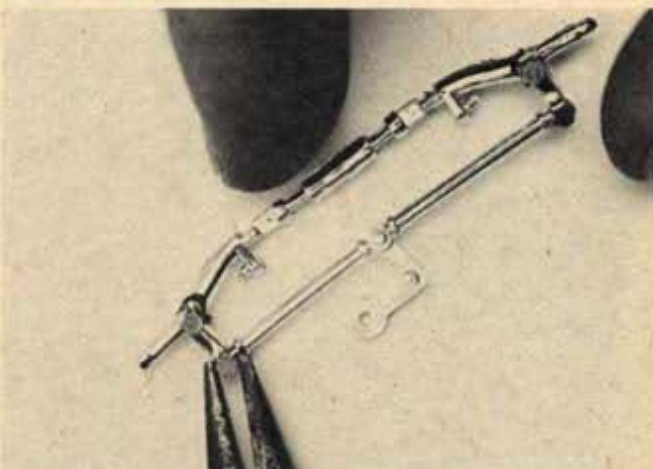
Hold cut-away axle center section in its original place on front axle assembly. Drill and tap with the No. 00-90 tap through the steering's pivot point at each end.



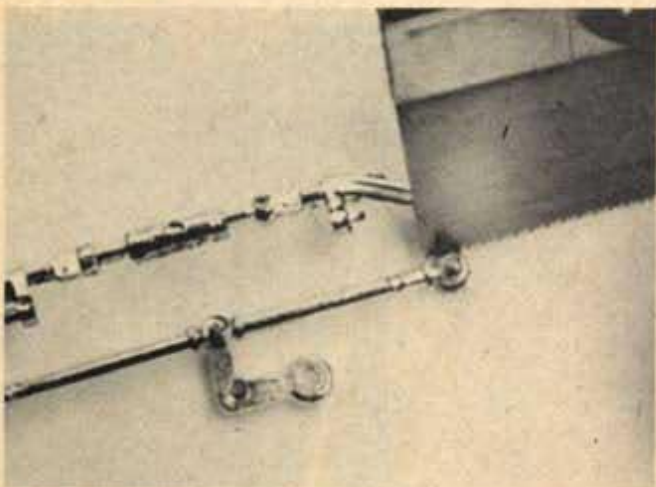
Hold axle to steering knuckle with the tap on one side while you drill hole in other side. It is most important that the axle pieces remain in alignment when drilled.



Use tweezers or needle nose pliers to screw the No. 00-90 screws into each of the axle's pivot points just drilled and tapped (threaded). Tighten only finger tight.



Drill and No. 00-90 tap each of the rear pivots points where the steering rods would pivot on the steering knuckle of the real car. Thread in No. 00-90 screws here too.

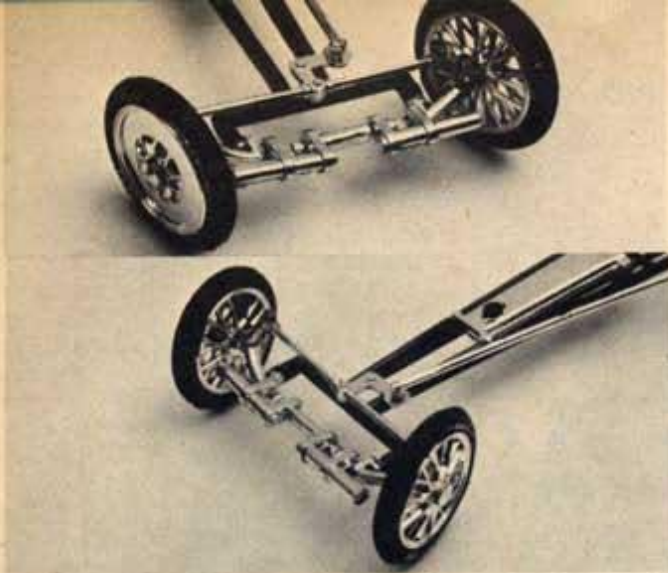


After No. 00-90 screws are set in the ends of the steering rods, the joint between the arms and the steering link can be cut on through to function like a hinge.

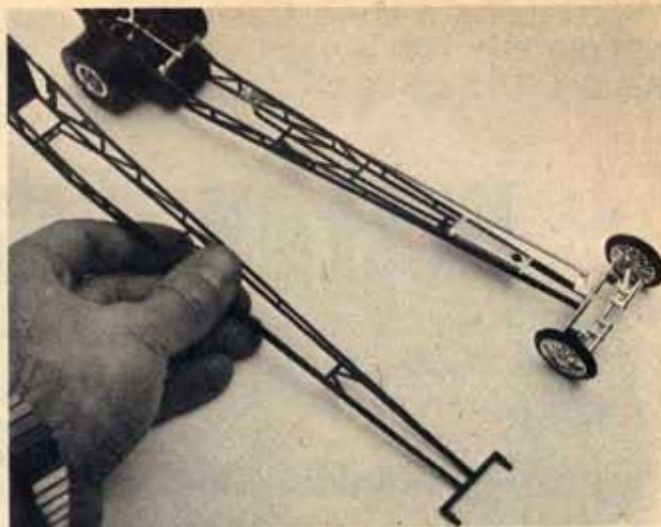


Hex heads mark pivot points for steering knuckles and steering arms. Screws are held in place by threads cut with the No. 00-90 tap; do not glue screws.

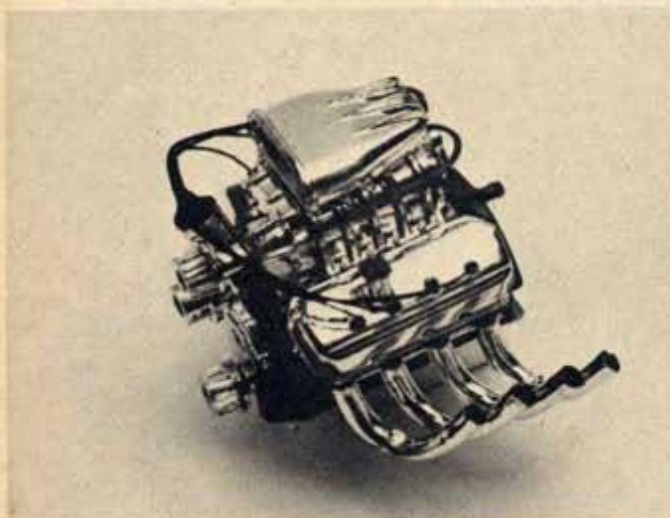




Modified axle can be glued in place just like stock unit. No other parts need be modified. Wheels will pivot about 25 degrees to the right or the left.



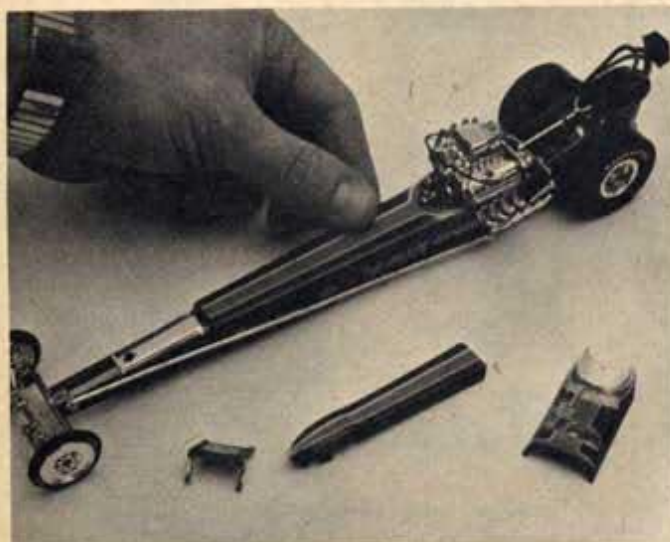
Major portion of complex dragster chassis is a one-piece plastic molding in MPC's 1/25 scale Garlits Wynncharger kit.



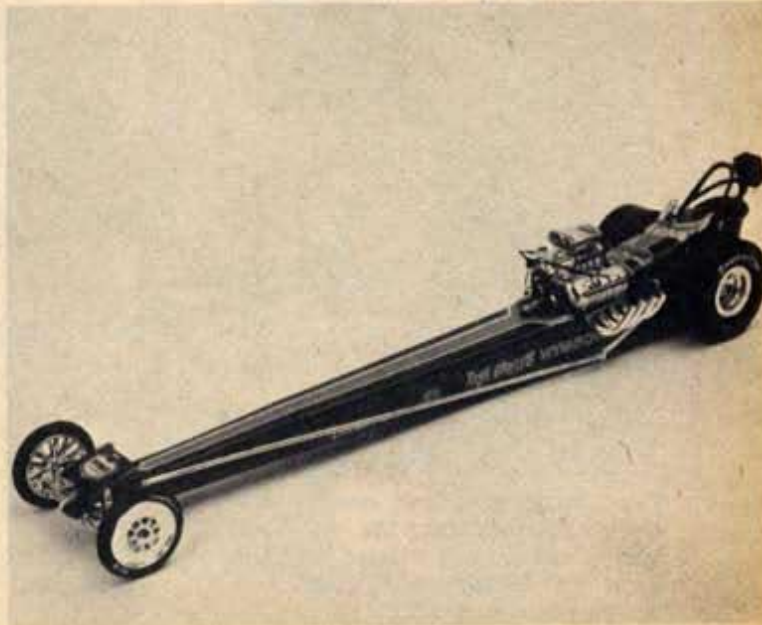
Fully exposed engines, like this one, look their best when ignition wires and fuel lines are added.



Fully detailed interior with gauges, seat belts, pedals, and steering is stock kit.



Upper body panels will stay in place without glue so detailed chassis can be exposed.





YOU'LL LOOK A LONG TIME BEFORE YOU'LL FIND A BETTER BUY FOR A BUCK THAN ONE OF THE REVELL 1/32 SCALE SPORTS CARS.

# DOLLAR CARS

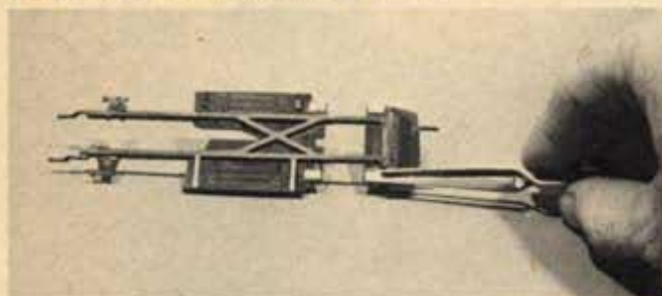


Opening hood, beautifully detailed interior (with a choice of right or left hand drive), detailed chassis and a choice of four of Britain's most popular sports cars — for a mere dollar? Impossible you say? Not with Revell's great line of 1/32 scale sporty cars.

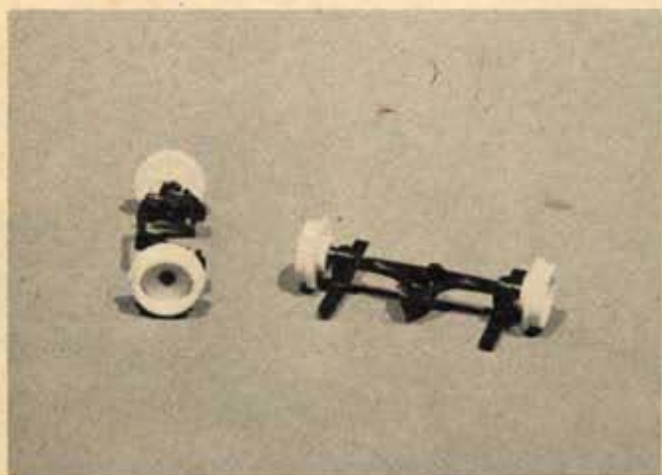
This line of cars has been available through Revell of Great Britain for quite a while but only recently found its way to our shores. My only complaint in building these little jewels is the wheels and tires. This can be easily overcome by investing \$.50 for a Palmer Plastics GT-40 kit. The wire wheels in this kit are the perfect compliment to the Revell cars.

Any of the four are a natural for super-detailing and race "prepping." All you'll need is tissue paper, chrome sprue (scrap plastic from the chromed tree) and an old pipe cleaner. Discard the chrome air scoop, exhaust pipe, front and rear bumpers since they wouldn't be required on a fully prepared race car.

The four sports cars currently available are the Sunbeam Alpine, Triumph TR-4, MGB, and Austin Healey 3000.

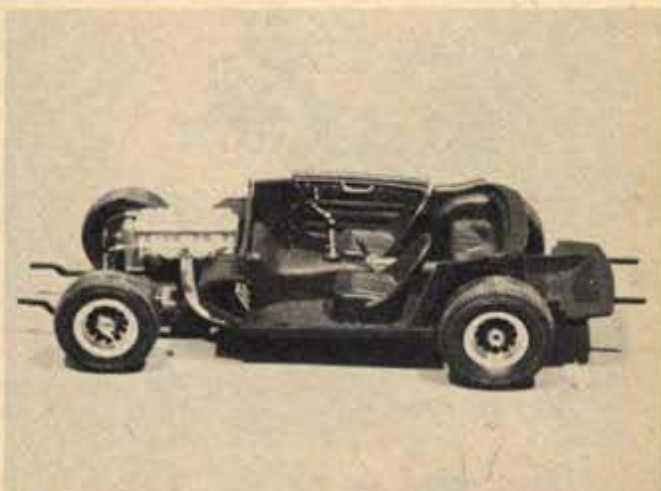


The Palmer GT-40 tires are bigger in diameter than the stock items and necessitates the "jacking-up" of the rear end. Small pieces of plastic glued under the rear springs will give you the necessary height.



Paint the interior and chassis matte black before installing the engine and wheels. India ink or thinned flat black paint will highlight the wire wheels and give them some depth.

20/Model Car Science

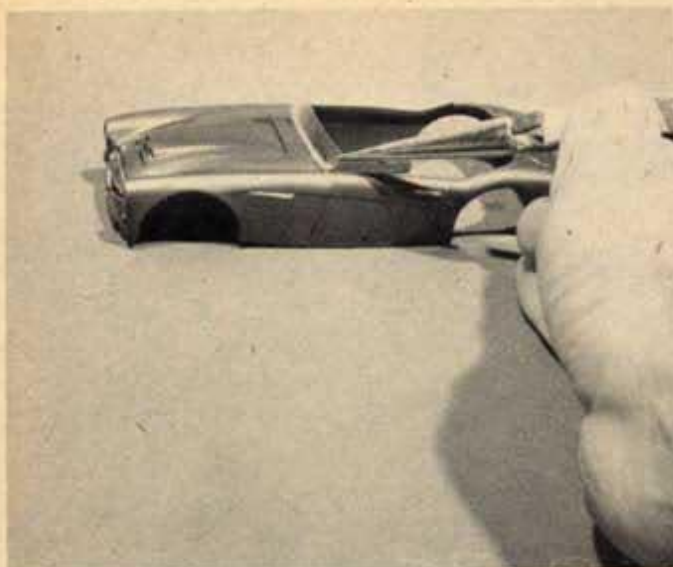


Glue the backing plates from the Palmer kit to the Revell axles.

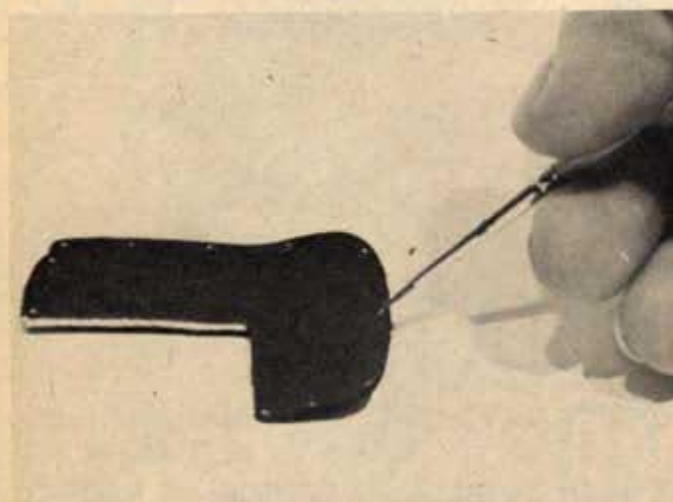


File all emblems and chrome trim from the Healey body. Scrub the body with a soft cloth and Ajax before painting with AMT's Blue Fog Lacquer.





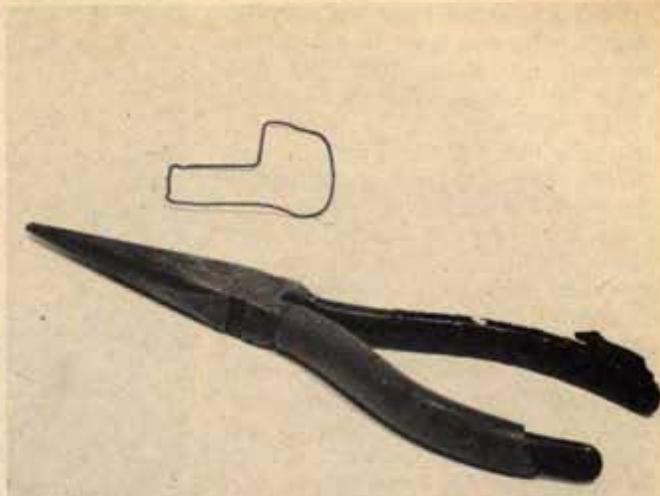
Cut off the lower windshield frame and glue a  $\frac{1}{4}$ " wide strip of acetate to it. Glue this assembly to the body.



Use Wil-Hold or Elmer's glue to glue a piece of tissue paper to the tonneau frame. Carefully paint the tonneau flat black.



Paint the under side of the hood (pardon me, the bonnet) flat black to simulate undercoating.



Probably the worst part of this project is bending the tonneau frame to shape. Follow the contours of the body exactly. The wire is merely a pipe cleaner with the fuzz burned off.



Heat a piece of chrome sprue and bend it to a "U" shape to resemble a roll bar. It should be  $1\frac{3}{16}$ " tall and glued to the floor directly behind the driver's seat. The "mod" gas cap and Talbot-type mirror are also from the GT-40 kit.



$\frac{1}{32}$  scale decal sheets are available at any slot car track. Solva-Set is a must to get the decals to snuggle down against the compound curves of the Healey body. The car, as shown here, is very nearly a copy of the car Hollywood Sports Cars used to race.



Richard Petty's Ford Torino Talladega has carried him to an all-time record of over 100 first-place NASCAR finishes. The bulk of Petty's wins were in a series of Plymouths, but the baby blue paint and famous number 43 were transferred to the side of the Ford Torino for the '69 season — Petty kept right on winning. Petty's nearest rival, in piling up such a seemingly endless list of sedan racing victories, is the other star of the Ford camp, David Pearson with 56 wins.

NASCAR Grand National racing is limited to late model full-size sedans. Most of the races are held on the banked oval tracks, like Daytona, Darlington and the lot, with a handful of road races thrown in just to prove that the cars *can* be steered left as well as right. In fact, the resemblance of the NASCAR stockers to street sedans ends with the similarity of the body panels and the rough engine block castings. The inside of the body is so well braced with steel tubing that the tubing becomes the real chassis, with the body just along for its wind-breaking effects. The 400-plus cubic inch displacement engines crank out in excess of 600 horsepower, enough to propel any and all of the top cars to well over 200 mph. And the lap averages on many of the NASCAR circuits are just a shade below 200 mph! If you consider that the fastest street Torinos, Dodge Chargers, etc., will only turn about 140 mph in their "street-production" versions, you begin to see what kind of sedan-disguised all-out racing cars the Grand Nationals really are.

One of the most interesting aspects of a model of one of these Grand Nationals is its size. A 1/32 scale Torino is almost as large as the average 1/24 scale sports car. As a result, the models handle far differently than the average 1/32 scale home set sports car. All things being equal, the Grand National 1/32 scale car will corner at faster speeds than a 1/32 scale sports car. The drivers must take careful account of the extra length of the Grand Nationals too. You can't pass one of these cars on the outside of most corners — you either wait for your chance at the inside of a corner or hope for enough speed to pass on the straight. The unwary driver who tries passing on the outside is bound for a nerfed trip off the track.

NASCAR Grand National sedan racing in 1/32 scale offers a whole new set of thrills and excitement to the home/club racer. If you haven't tried it, grab one of the smaller 1/24 scale ready-to-run chassis (like the No. 164 Champion we used) and IMC's 1/32 scale Ford Torino or Dodge Charger 1/32 scale body kits and get with it.



# THE GRAND NATIONAL SCENE

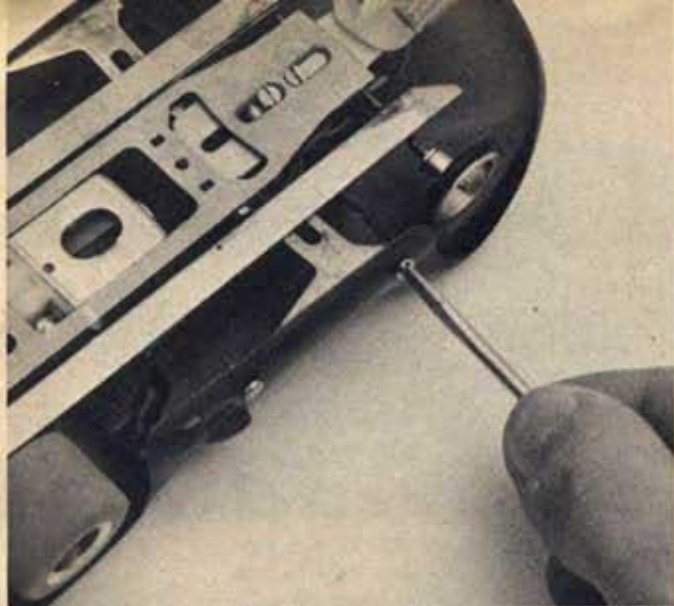
By Robert Schleicher

TRY 1/32 SCALE SEDAN RACING IF YOU WANT TO ADD NEW THRILLS TO YOUR CLUB RACING!

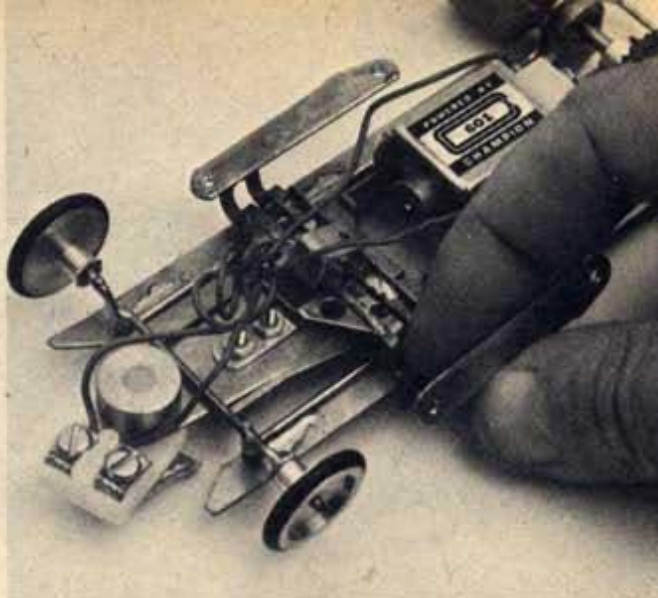


For "instant" 1/32 NASCAR Grand National cars you'll need IMC's Torino or Charger body kits, Monogram 1/32 scale rear tires and wheels, AJ's No. SK-2 sponge tires and wheels, and Champion's No. 164 1/24 rtr car.





1/32 scale Grand National sedans are almost as large as 1/24 scale sports cars. Chassis from Champion ready-to-run is a good choice.



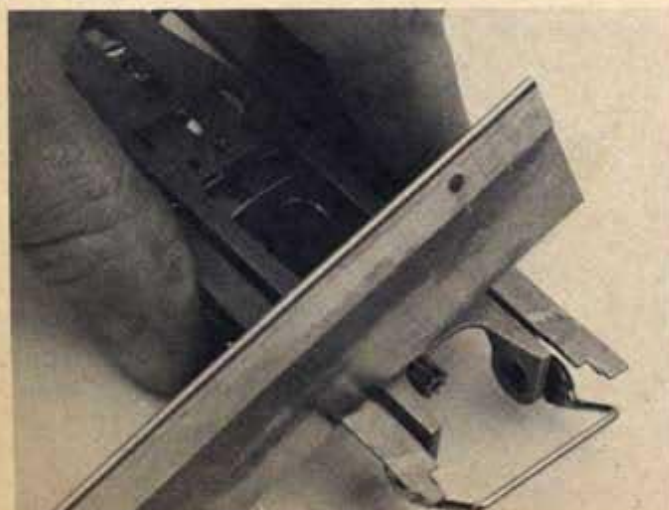
Bend up the Champion body mounting brackets so the mounting tab is level with the top of the motor on each side of chassis.



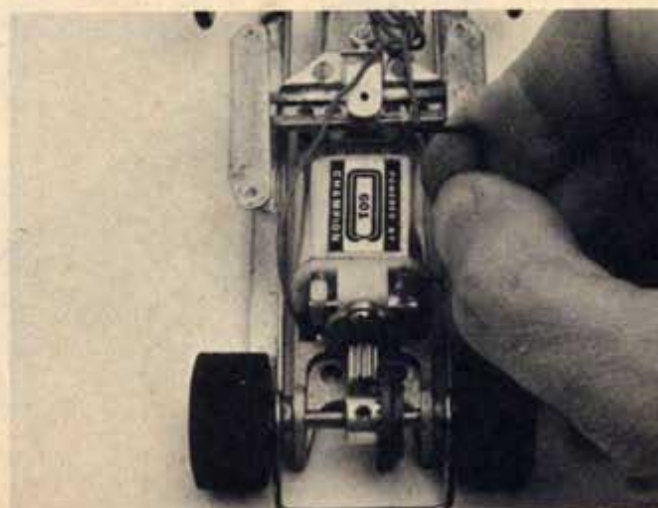
Remove the thread-on Champion rear wheels by holding tire in one hand and loosening outer wheel lock nut with needle-nose pliers.



Remove the rear axle, wheels and gear. Slice off the extended portion of the rear axle bearings exactly flush with frame.

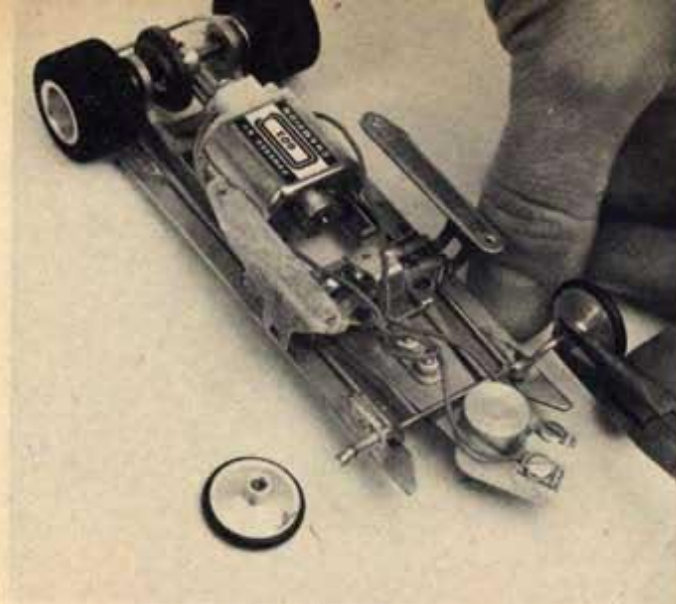


The last one-inch of the brass chassis' side weights must be cut off to clear the closer-spaced tires on 1/32 scale car.

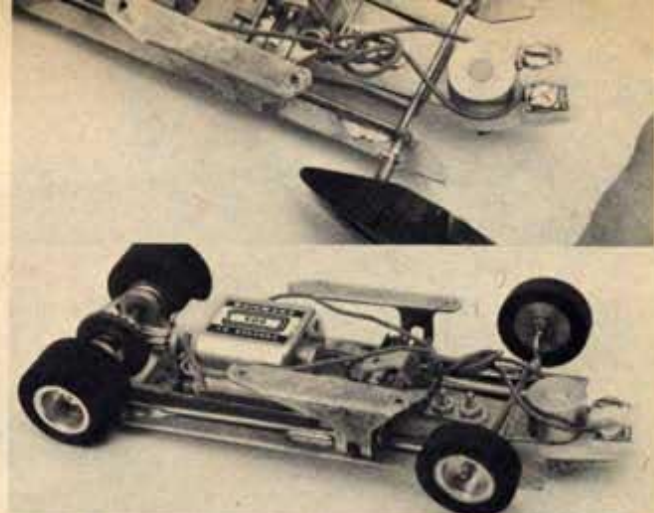


Cut off the threaded ends of the stock axle so the AJ's set-screw wheels can be tightened in place to clear body shell.





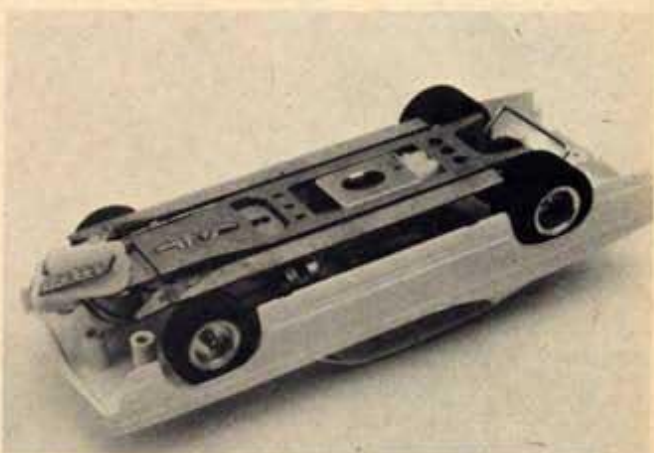
Remove the stock wheels from front of Champion's rtr by holding brass nut with wrench or pliers and spinning off wheel.



Cut off the last 1/16" of the wire axle ends. Leave soldered-on collars and brass wheel bearings in place on axle. Bend front axle ends back and in so new Monogram 1/32 scale rear tires and wheels will fit width and wheel-base of Torino.



The interior from the IMC Torino (or the Dodge Charger) body can be drilled to fit the chassis body mounts, screwed on.



Glue interior and windshield inside body (after primary body color is painted-on). Body can be removed by loosening the self-tapping screws threaded through the holes in the Champion chassis' body mounts.



IMC Torino body is painted blue with No. 43 decals to match Richard Petty's full-size NASCAR Grand National sedan.

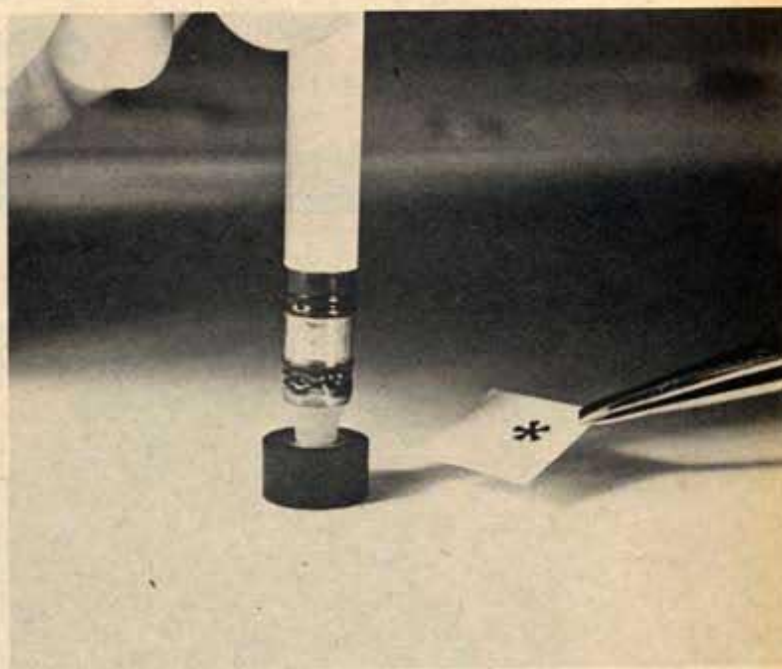
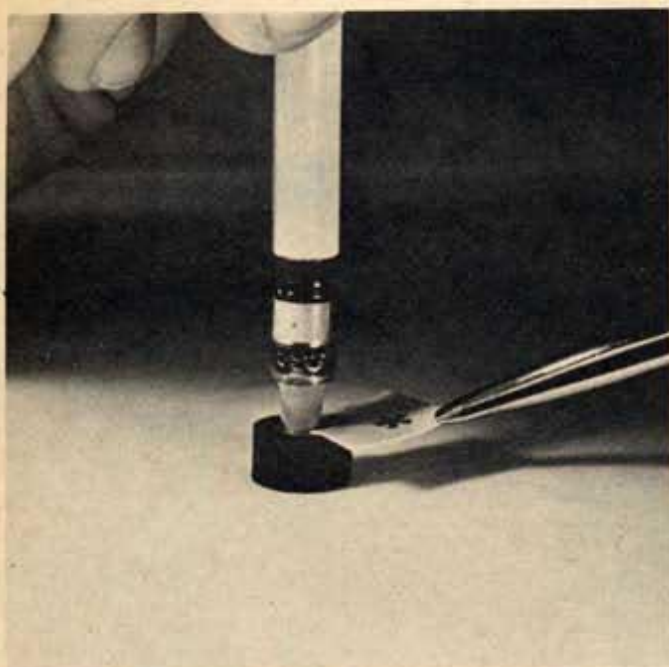
24/Model Car Science



Painted and race-ready 1/32 scale Ford Torino is ready to "do battle" with other sedans in IMC's "Grand National" series.



# SLOT RACERS' WORKSHOP

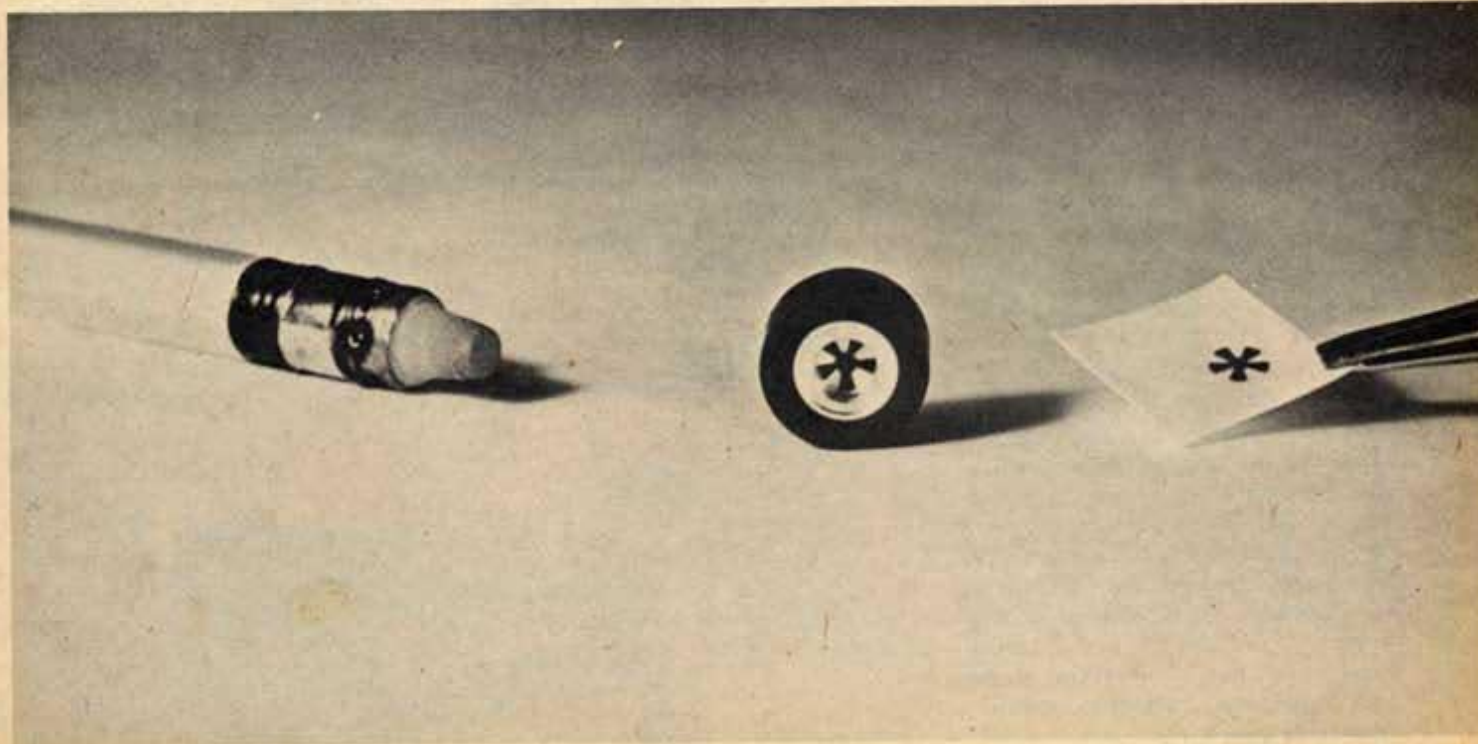


AJ's (a division of Twinn-K) has a beautiful set of "mag" insert wheel decals which make any H.O. scale aluminum wheel into a thing of beauty. While the wheel decals have been taken to the H.O. scale racers' hearts, a few questions have been raised as to the best method for installing them. The photos show you the best way; it's very simple. Now go ahead and have yourself a ball.

Moisten the decal in water, as you would any other decal. Then, with the pencil eraser positioned over the center of the wheel, apply light pressure on the decal and slip the backing paper away.

Press the decal into the center recess of the wheel.

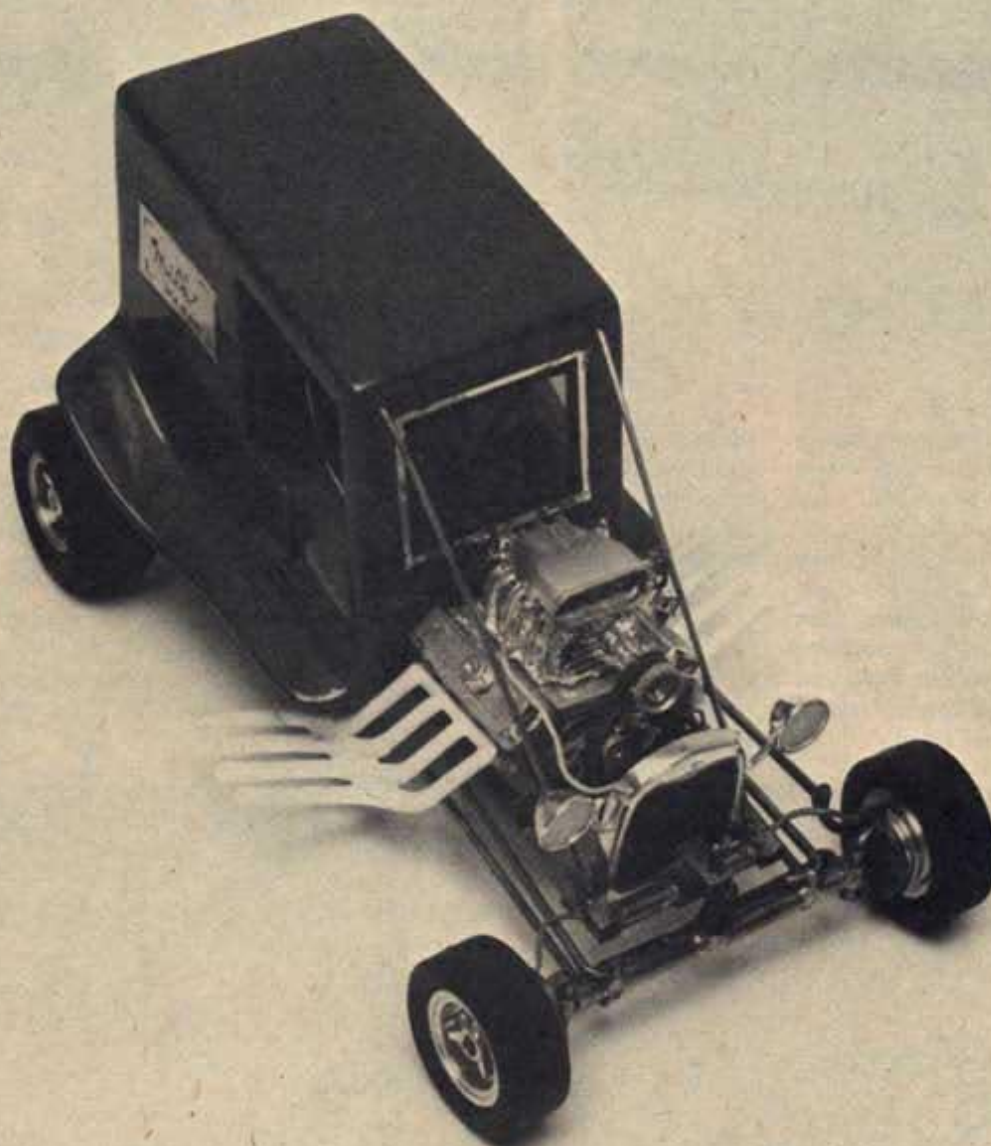
Here's the decal applied to the wheel. The shape of the pencil eraser can be obtained with an X-Acto knife, and it will make the installation process very easy.





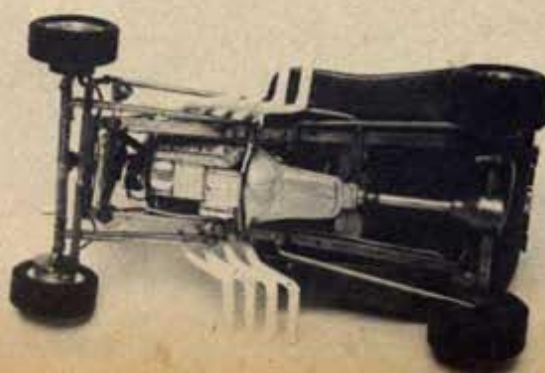
MPC'S SECOND ANNUAL MODEL CAR CUSTOMIZING CONTEST WAS HELD IN NEW YORK CITY IN CONJUNCTION WITH THE EIGHTH ANNUAL NATIONAL CUSTOM CAR SHOW, AND IT WAS A SMASHING SUCCESS!

# MODELER'S SHOWCASE

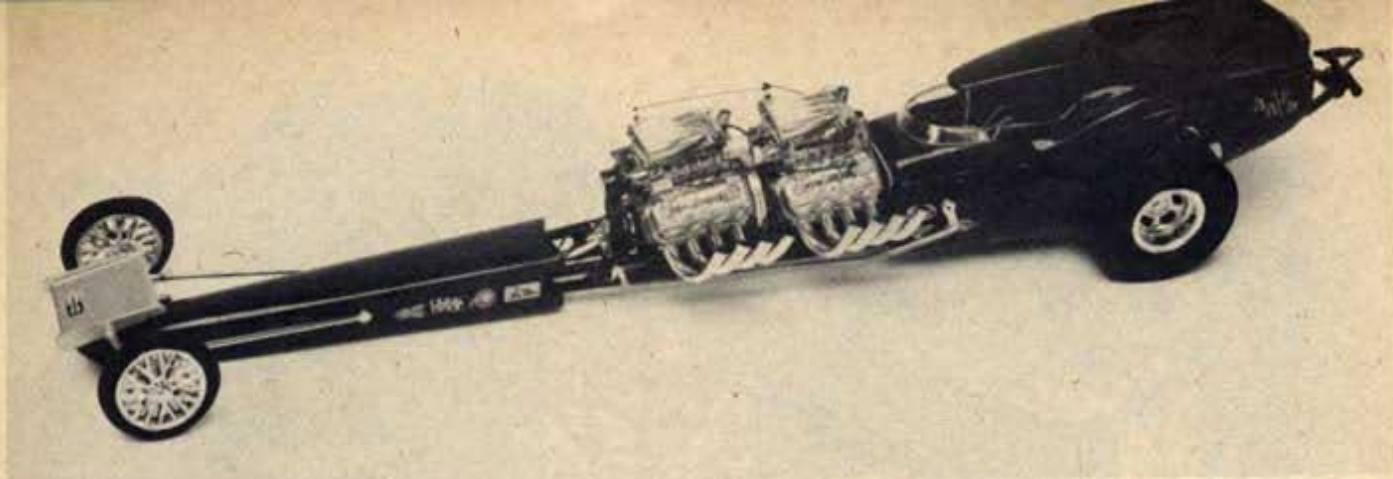


First place in the Adult Division, and winner of the Best in Show award is this beautiful scratchbuilt "Milk Wagon" By George Borlose, 21 years old, of 11 Birch Lane, Florham Park, New Jersey. George used MPC's 1/20 scale Corvette engine, slot car wheels front and rear, and a beautiful nickel-brass frame. Nearly everything works too: suspension, butterflies, steering, removable wheels, etc.

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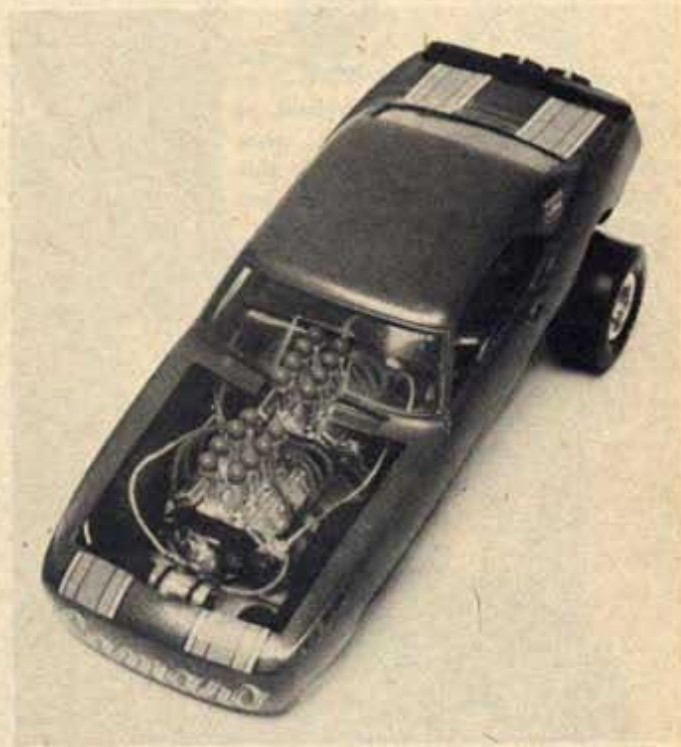




Second place in the Adult Division was won by 18 year old Carlton Tasch, of 1811 Mulford Ave., Bronx, N.Y., with this magnificent dragster which he named "Hyper-Dermic." The basic kit used was MPC's "Galloping Ghost II." The engines are completely detailed and wired. The rest of the chassis has received the same loving attention to detail, too.



Third in Adult Division went to Joe Giunti, 20 years old, of 414 Avenue C, Brooklyn, N.Y., for his full custom. Based on a 1964 Johan Plymouth kit, Joe's car uses a 427 Ford (from Custom Parts); MPC Ford GT front and rear wheels; rear body parts from AMT's 1960 Chevy (top) and 1962 T-Bird (rear).

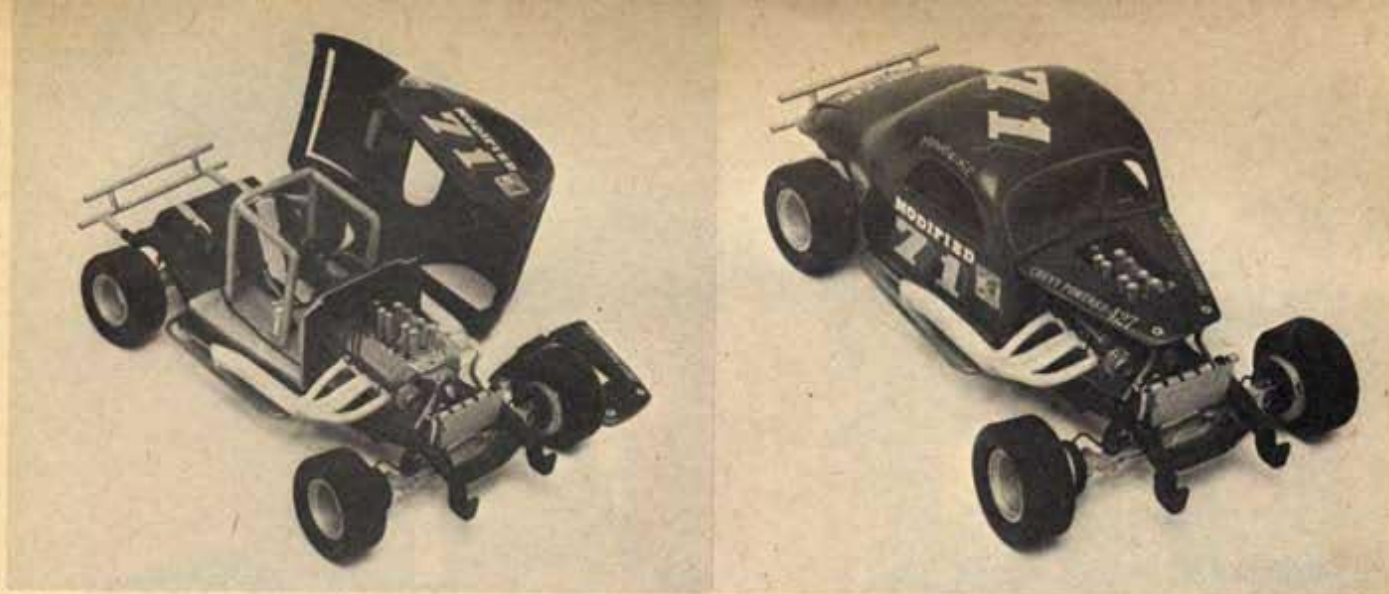


First in Junior Division went to Anthony Criscione, 12 years old, who lives at 1717 Zerega Avenue, Bronx, N.Y. Anthony's car is basically a 1969 MPC Camaro, highly modified! Check out those two injected 427 mills from the same basic kit! The interior came from AMT's 1964 Corvair "Funny."

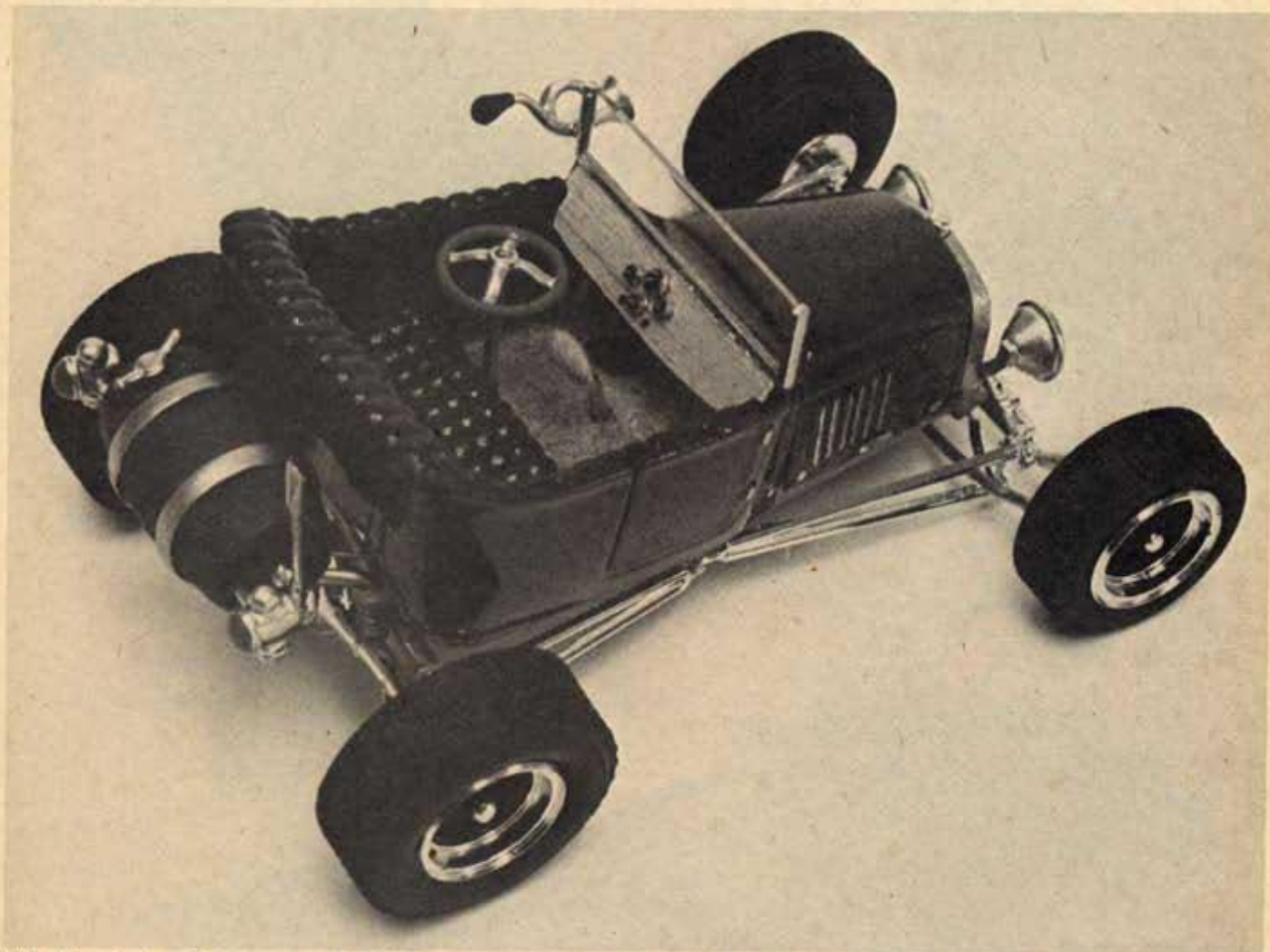


First in Senior Division went to Melvin Huggins, 15 years old, of 200-West 146th St., New York, N.Y. Mel's basic kit was MPC's "Air Lift Rattler," with a lot of "Melvin's Magic" added.





Seventeen year old Larry Riveland, of 138-71st St., Brooklyn, N.Y., won second in Senior Division with this Revell '41 Willys, sporting a 427 Chev engine from an AMT 1965 Chevy Impala.

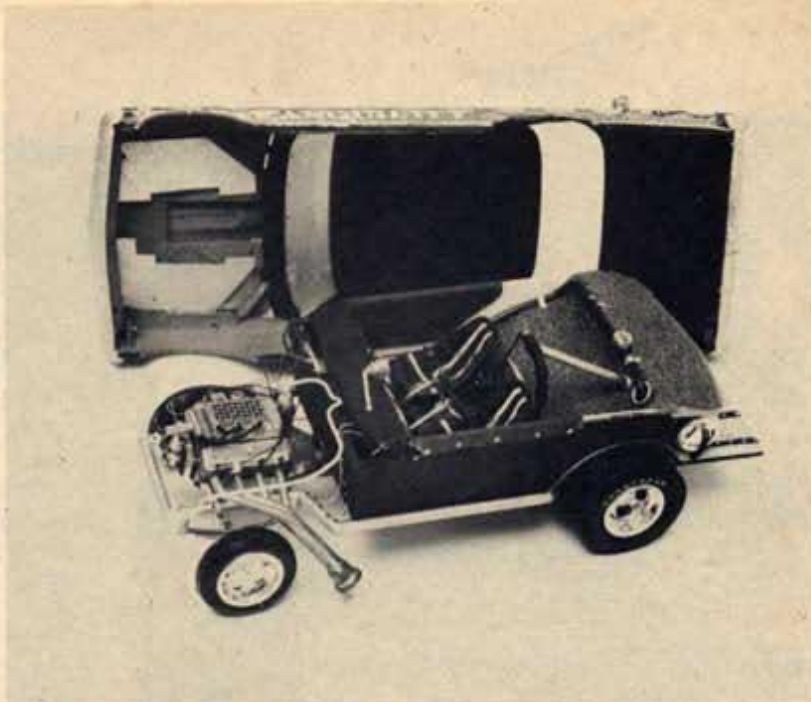


Third in Senior Division was Bruce Landry, 15 years old, of 42 Plymouth Avenue, Maplewood, N.Y. Bruce's basic kit was an AMT 1925 Ford "T" fitted with a 289 cubic inch IMC Ford Mk II engine.

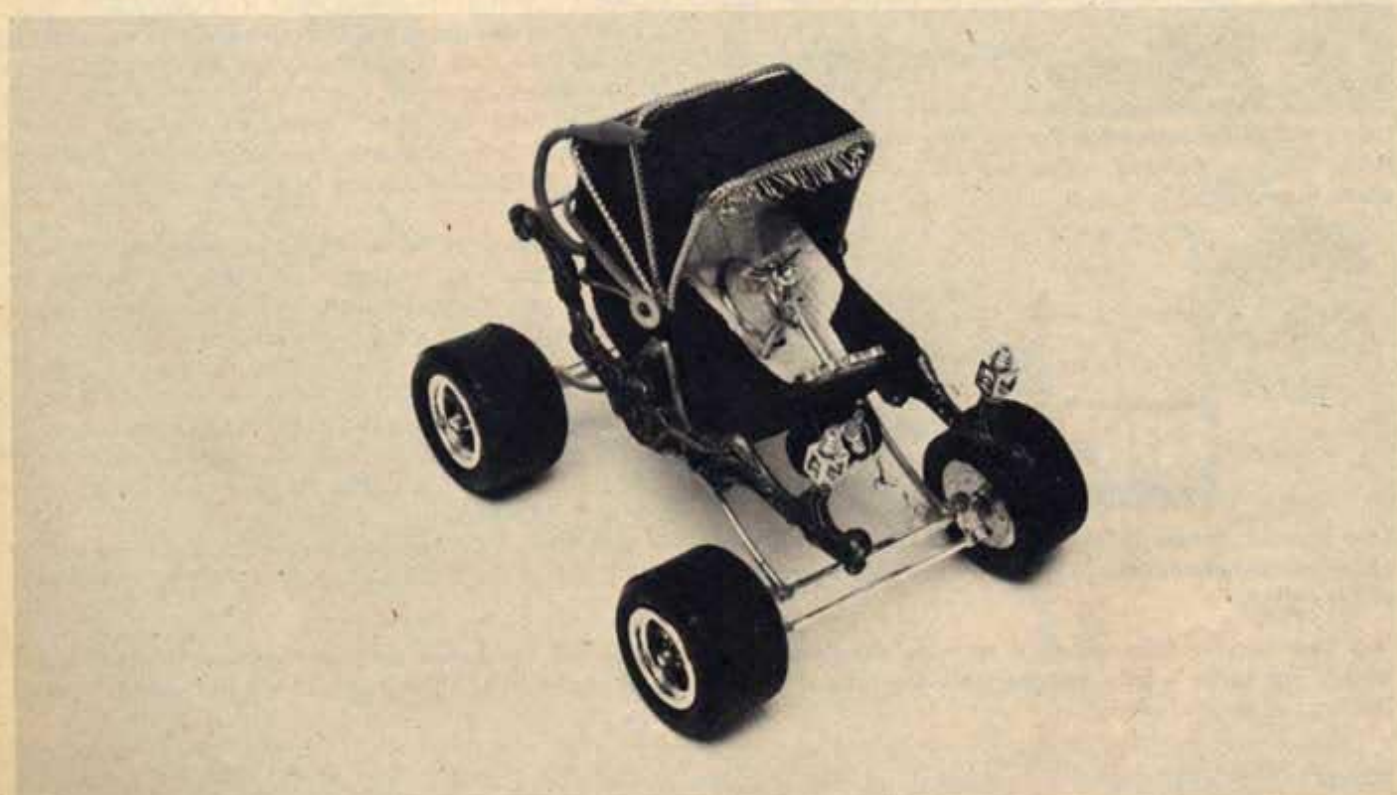




Best Paint went to Louis Pizzo, 14 years old, 847A Berkley, New Milford, N.J., for this fantastic scratchbuilt wonder on wheels.



Best Detail was won by Paul Skoda, 17 years old, of 1704 Helderbert Avenue, Schenectady, N.Y. Paul's wild AMT Chevy II Funny Car had everything from tape on the rollbar to an explosion blanket on the transmission cover! Unreal attention to detail, Paul.



Paul Skoda also won the Originality Division with this insane scratchbuilt "whatsit." You can sit and look at this car for hours and still be fascinated. Now *that's* what we call using your imagination!



AMT'S "DIRT HAULER" HAULS A FEW "NOTES" TOO!  
By Ted Sherman

# THE RADIO TRUCK

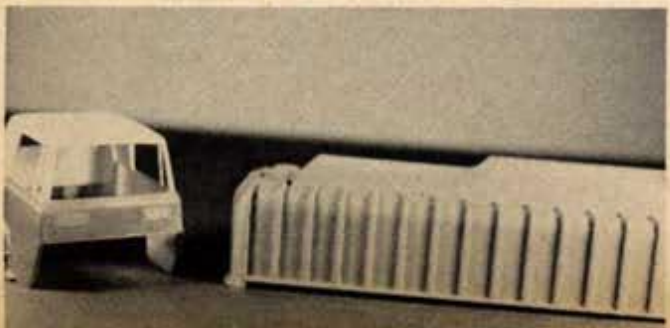


Here's the basic equipment for building the radio truck. Radio Shack's "Build-In" radio and AMT's "Dirt Hauler" trailer truck.



This is what comes in the "Build-In" radio kit: a six transistor ready built radio, a speaker, and a volume control on-off switch.

The first step in construction is spraying the cabin and trailer. The trailer is gray, and the cabin was masked off at the top and sprayed green.



Here's the latest in scale realism—a model truck with a working radio! Actually the radio is in the back of AMT's "Dirt Hauler," and tuning knobs stick out the sides, but it's a neat way for a model car builder to keep a radio on his desk.

You don't have to be an electronics expert to make the radio. Radio Shack calls it their "Build-In" radio kit. Don't be afraid of the word "kit." In the box are a fully constructed six transistor radio in a 3-1/2 x 2-1/4 x 1 inch plastic case, a speaker, and a volume control on-off switch. Out of all three come color coded wires. After placing them in position, you match up the color coded leads and solder them together. The only knowledge you need to know is how to tell colors, and how to solder.

The model chosen was AMT's Dirt Hauler. This was used because of the large trailer in which to place things. They also have a moving van, which will accommodate the radio nicely.

You can also try fitting the radio in MPC's super size AMX, or in any fairly large model car.

Construction of the model itself is very easy. The trailer is molded in one piece, and the cab has few pieces. Since it takes so little time to construct, you have lots of time to add the little extra details.

To get the "Build-In" radio, order Radio Shack's catalog, 730 Commonwealth Ave., Boston, Mass. 02215 in the East, 1515 So. University Dr., Ft. Worth, Tex., 76107 in the West.

Modifications on the model can easily be made by you. As shown later, the tarpaulin cover can be changed for plaster of paris cover. Lettering on the sides of the cab can be made with rub-on lettering or decals.

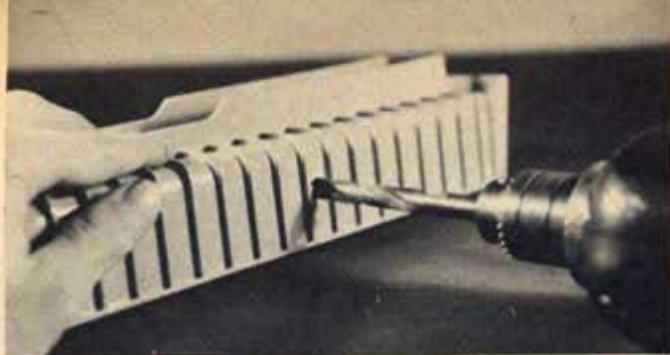
Painting is left to your discretion. You can paint it way out, or weather it using flat paints. If you really want to weather it effectively, Floquil paints has a weathering kit of paints. With these you can brush on dust, rust, mud, grime, and grimy black. These can be purchased at a model railroad hobby shop.

Now that you've got the materials, what are you waiting for? Get to work on the musical truck, and have a modelers radio.

A hole for the tuning knob of the radio is drilled in the front of the trailer. The hole should be at least 7/32 of an inch.



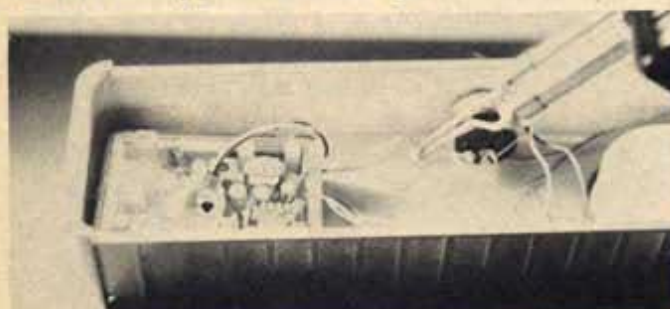




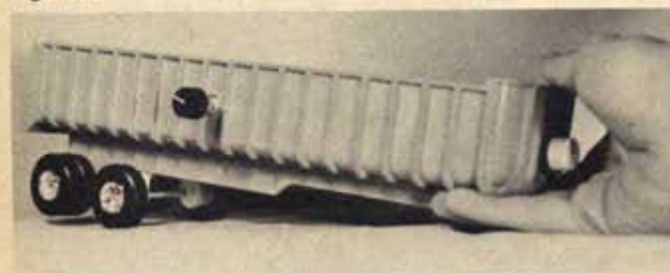
A second hole for the volume control is now drilled. Make it at least 1/4 of an inch.



Screw the volume control into the hole drilled earlier. The wires are already soldered to the lugs.

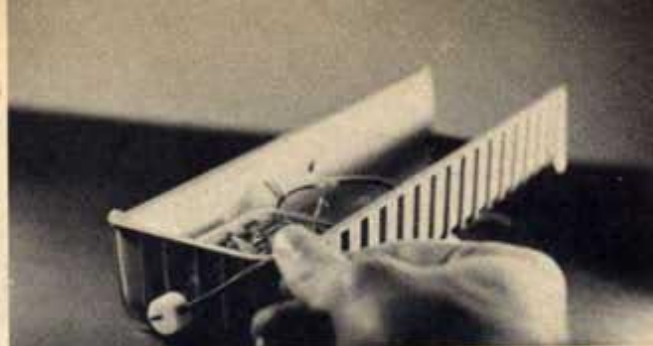
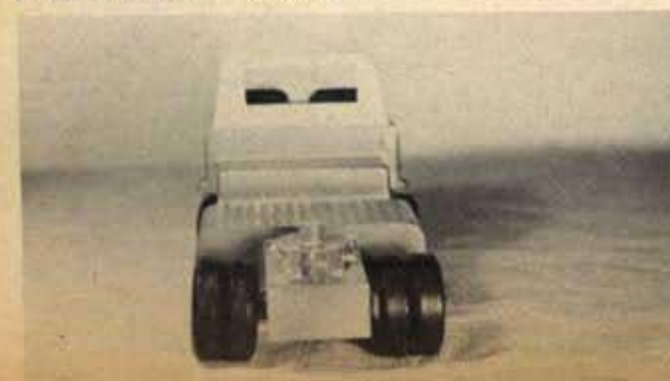


Now solder the leads together. Use rosin core solder. All the leads are color coded so all you have to do is match them up—red to red, blue with blue, etc. Then solder them together.

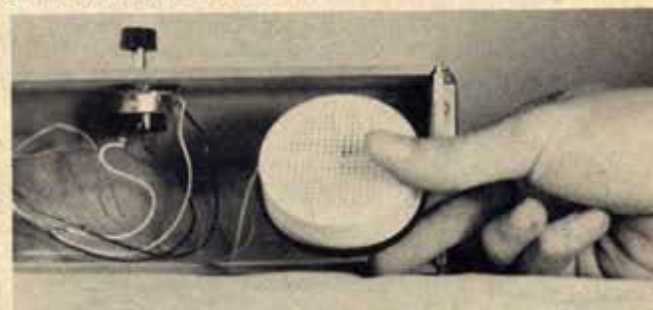


Now the wheels are put on. Here you can see the white tuning knob and the black on-off tuning knob.

Here is the rear of the cab, with the back four wheels. Trailer is placed on the back.



Place the radio into position with the tuning shaft through the hole. The radio should now be epoxied to the bottom of the trailer. Now screw the knob on the shaft.



Place the speaker into the back of the trailer, and epoxy it in place. Here you can see the volume control also in place with the knob on.



Here's a bird's eye view of the trailer with all components in place. Battery just snaps in place.

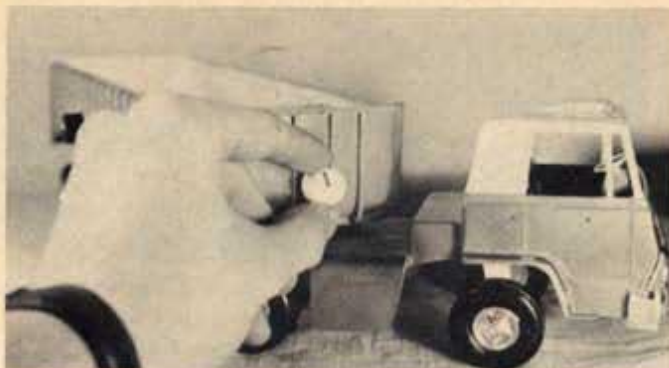


The cab is now finished according to the instructions.

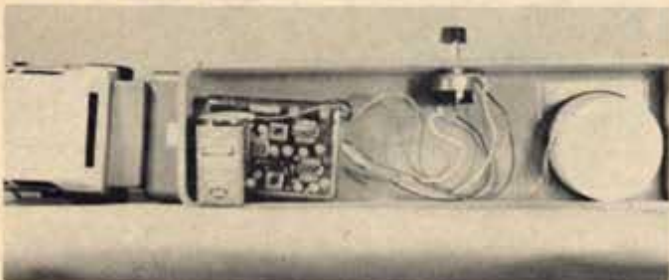
The back is now glued in place. It is painted gray to match the trailer. Note the speaker.







At this point, the radio can be played. Turn it on and tune in a station. If it doesn't play, you either mixed up your leads, or the battery is dead.



Although the truck is finished, you can still see the radio. To fix this, you can either fill the trailer with dirt, which won't help the radio much, or make a tarpaulin for the top.



Leave the front free, to replace the battery when it goes dead. The battery lays on top, and snaps to a clip.



A piece of music wire soldered to a spring should be glued to the cab for an antenna. This doesn't connect to the radio.

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The truck is now finished, with the trailer in place on the cab. Do not glue it in place.



Cut a piece of brown cloth or canvas for a tarpaulin and sew it in place with thread or string. An alternative to this is to make a plaster of paris cover that looks like dirt, to fit on top.



Now you can add finishing details. The top lights are painted amber. License plates can also be added.



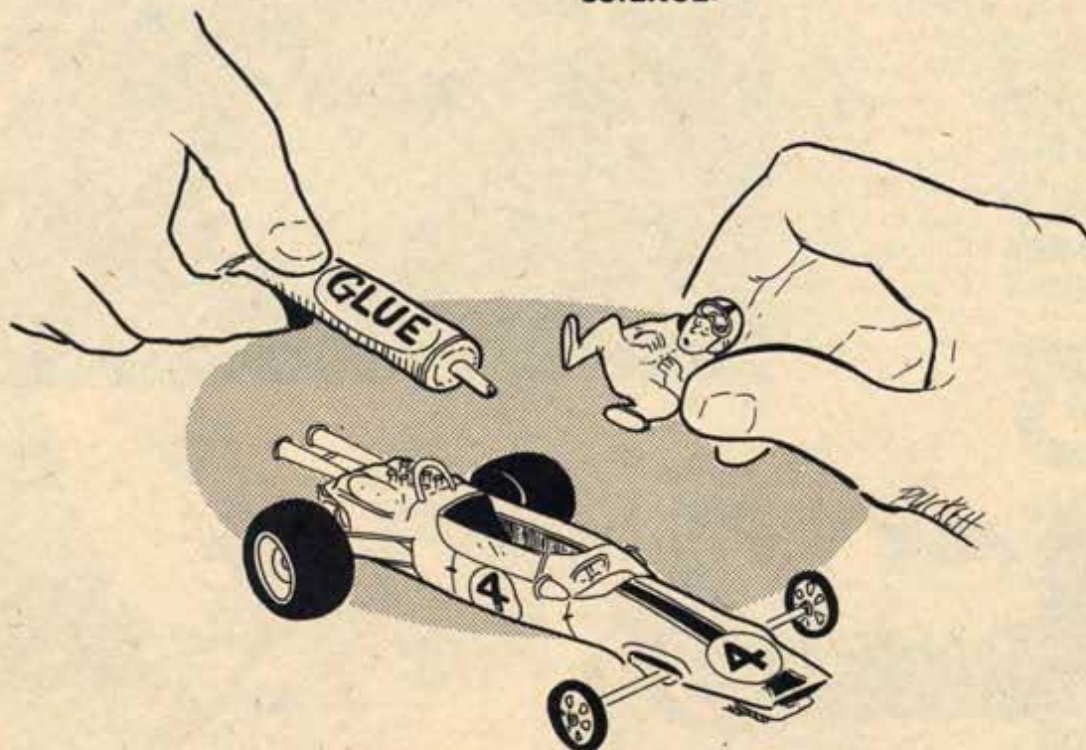
Here's the back view of the radio truck. Don't forget the lashings on the back of the tarpaulin.



# "CAPTION THE CARTOON" CONTEST

This is the simplest contest to enter and win yet! Just think up a gag line to this wild cartoon by Joe Puckett, then fill in the coupon and mail it as soon as possible.

If you don't win this one, watch for the next one. We'll be running one a month! And you can win a free one year subscription to MODEL CAR SCIENCE!



## WINNER OF THE FEBRUARY CONTEST.

Peter A. Sharp  
520 Utah  
San Francisco, Calif. 94110



"But Carl, you said that beetle was eating up your track!"

Clip and mail today! Win a one year subscription to MODEL CAR SCIENCE!

MODEL CAR SCIENCE  
Dept. Dept. A-10  
131 Barrington Place  
Los Angeles, Calif. 90049

My gag line is \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

April 1970/33



# A "1420 FUNNY"

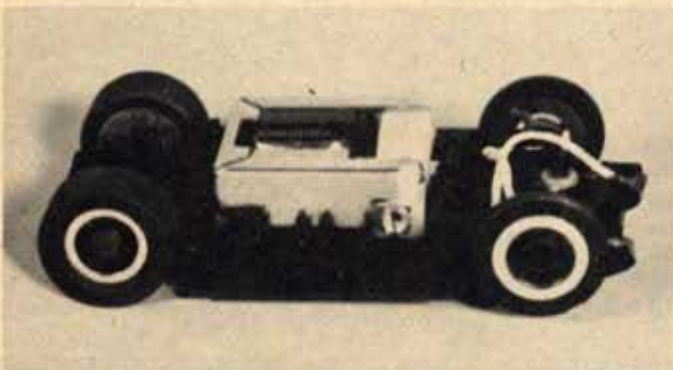
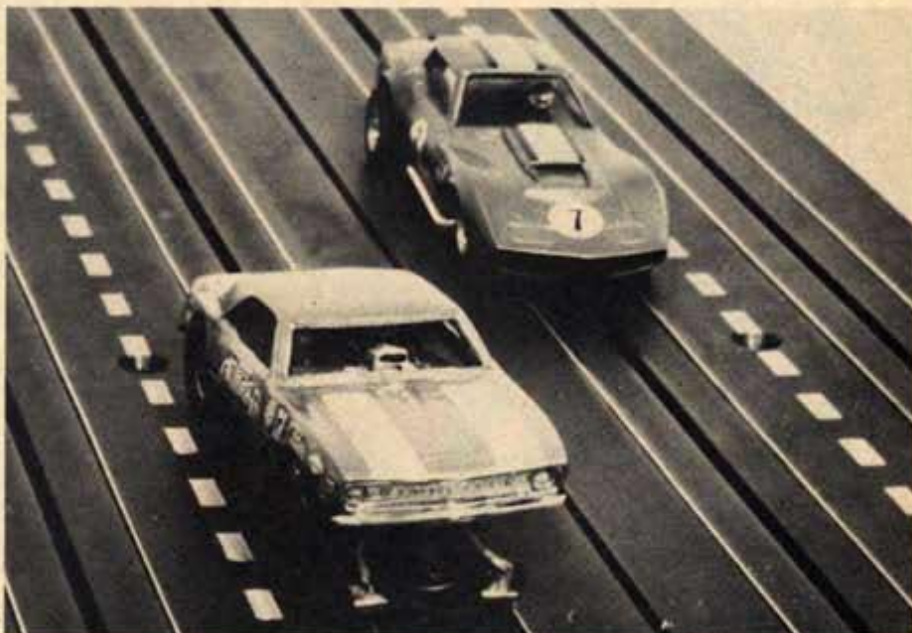
By Brick Price

The editor finally thought I'd flipped the other night! I had just finished the road test on Tyco's great new HO cars and there I was, babbling incoherently and tearing one apart. It was for a good reason, though. The new Tyco's are a good starting point for building a fast scratchbuilt Funny Car with concours-winning ways. The mag wheels look as real as the Goodyear Blue Streaks with raised lettering. I needn't say too much about the motor since it is the hottest ever offered to HO enthusiasts. All that is required to turn even a stock Tyco into a screaming terror is to remove some of the road gear, especially the heavy pan.

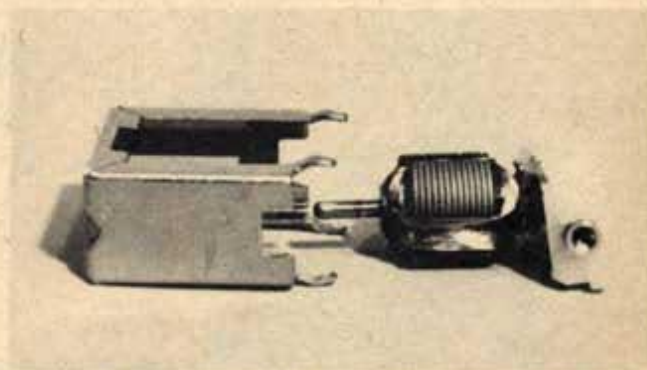
Our super funny car is built for straight line dicing only, with no frills. All of the weight possible has been removed.

Pat Dennis has a Mustang F/C all ready to go if someone will stage an invitational drag meet.

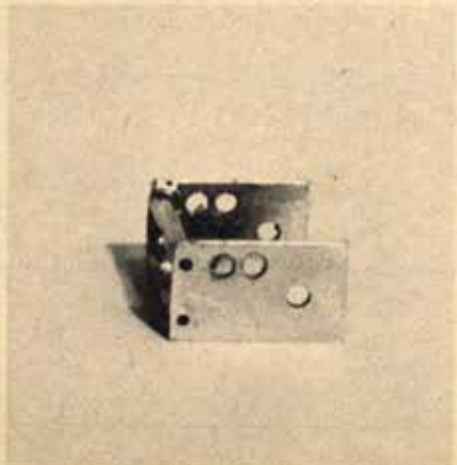
1420 feet that is - 1/4 mile, and here's the H.O. "funny car" that can do the trick!



It seems like a shame to destroy it, but you will need a Tyco-Pro car.



Remove the motor by first removing the drop flag. Gently bend the tabs that hold the end bell in place and remove it.



Cut two small pieces of brass sheet. Drill two 1/16" diameter holes to fit brass tubing and one to fit the Tyco axle in each piece.

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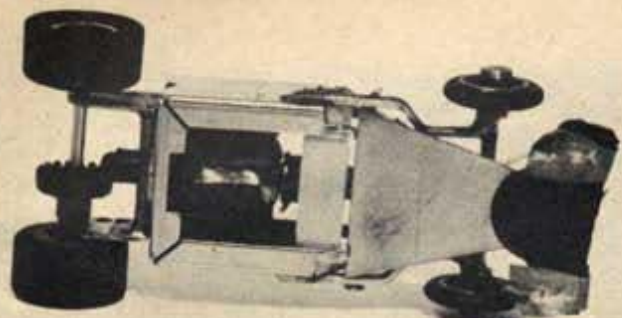


Solder two pieces of 1/16" tubing in place as shown. File a notch in each tube to clear the bushing at the rear of the motor.

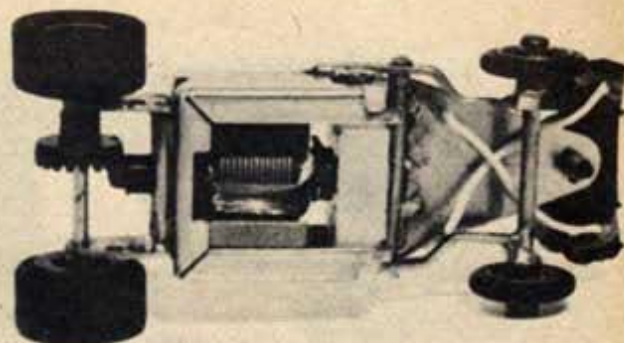


These groovy little cast wire wheels came off the "MATCHBOX" No. 75 model. Apply solder to each end of the axle. Apply oil to the hubs until the wheels work freely. Presto! You've got independently-rotating front wheels. Solder two pieces of N gauge track to the axle as shown.

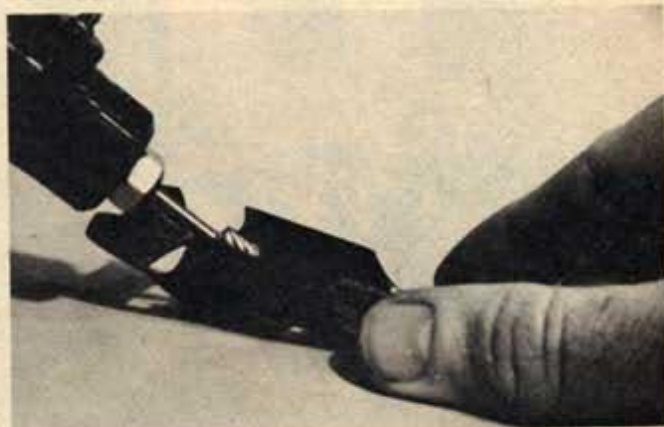
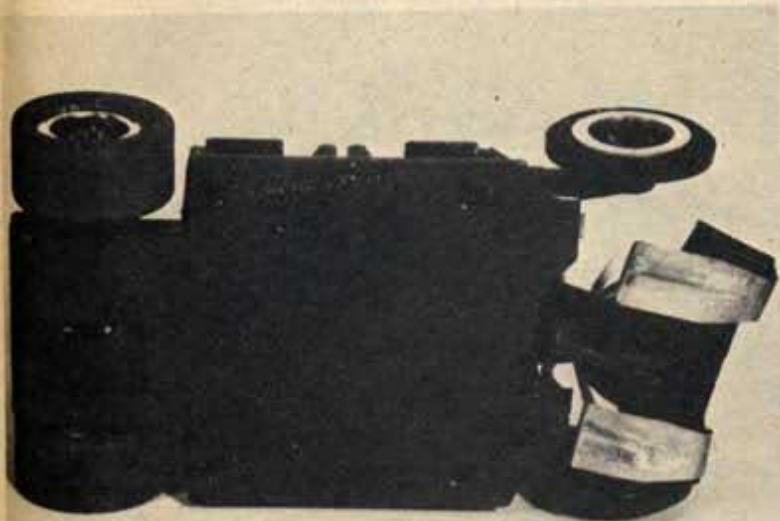




Solder the front and rear assemblies directly to the motor. Check for fit to the body. Drill a hole in each N gauge rail to accept a straight pin to support the long drop arm. Reassemble the motor; put O rings on the "MATCH-BOX" wheels; install the drop flag.



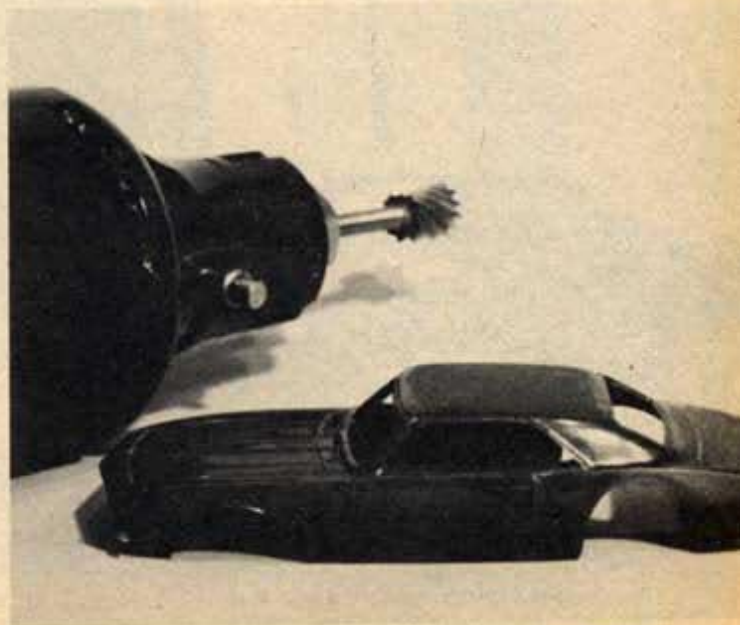
Hook up the wires after crossing them as shown. Apply one drop of oil to each moving part. Run the car on six volts until the gears and all other moving parts have had time to seat.



Mini-Lindy's Camaro shell can be lightened considerably using Dremel's fantastic new Moto-Tool. If you don't own one, buy a Dremel bit to use in an electric drill. Grind the shell until light can be seen through the plastic.



Radius the rear wheel wells, again using the Moto-Tool or a jeweler's file.







One of the handiest "tools" I own is the Mattel Vac-U-Form. Support the stock windshield with putty before forming a lightweight replacement for it.



The Vac-U-Form is also useful if you want a detailed interior without adding much weight. The scale-looking V-8 engine with supercharger was formed from Mattel's "Hot Wheels" VW.



Paint the engine silver. Drill a hole in the interior panel and insert an Auto World head.

The roll bar was made from scrap plastic chrome sprue. Detail the driver and engine with a No. 0000 brush.



Assemble and paint the body to suit your taste. The lightest and simplest method for mounting the body is to use double-sided masking tape on the motor case. It will stick to the interior piece and prevent a transfer of noise to the plastic body.



The gold leaf "critter" decal came from Revell's "Skipper's Critter." The nice looking sponsor decals came with Hot Wheels cars and from Auto World.

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The neat looking spoiler was made by gluing a piece of triangular-shaped plastic to the rear deck.



# THE HOME LAYOUT OF THE MONTH

This month's winner of the one year subscription to *Model Car Science* is Robert Livingstone, of 1519 Miller Road, Castleton-on-Hudson, N.Y. 12033. Bob's beautiful 85' per lap, three-lane home raceway is powered by two 12-volt automobile batteries — power plus! This hardy power might account for the quick 5.3 seconds lap record, set by a sidewinder Lola T-70. The track surface is 3/8" particle board. The scenery, although not complete, is being worked on steadily and will soon be finished. The banked curve is 40 degrees at its steepest point, 30 degrees at the entrance and exit. The track is suspended from the ceiling by steel wires, as added support. Beautiful track, Bob. You'll get the first issue of your subscription in approximately 60 days.



Stock cars negotiate the banked curve as they enter the top of the straight.

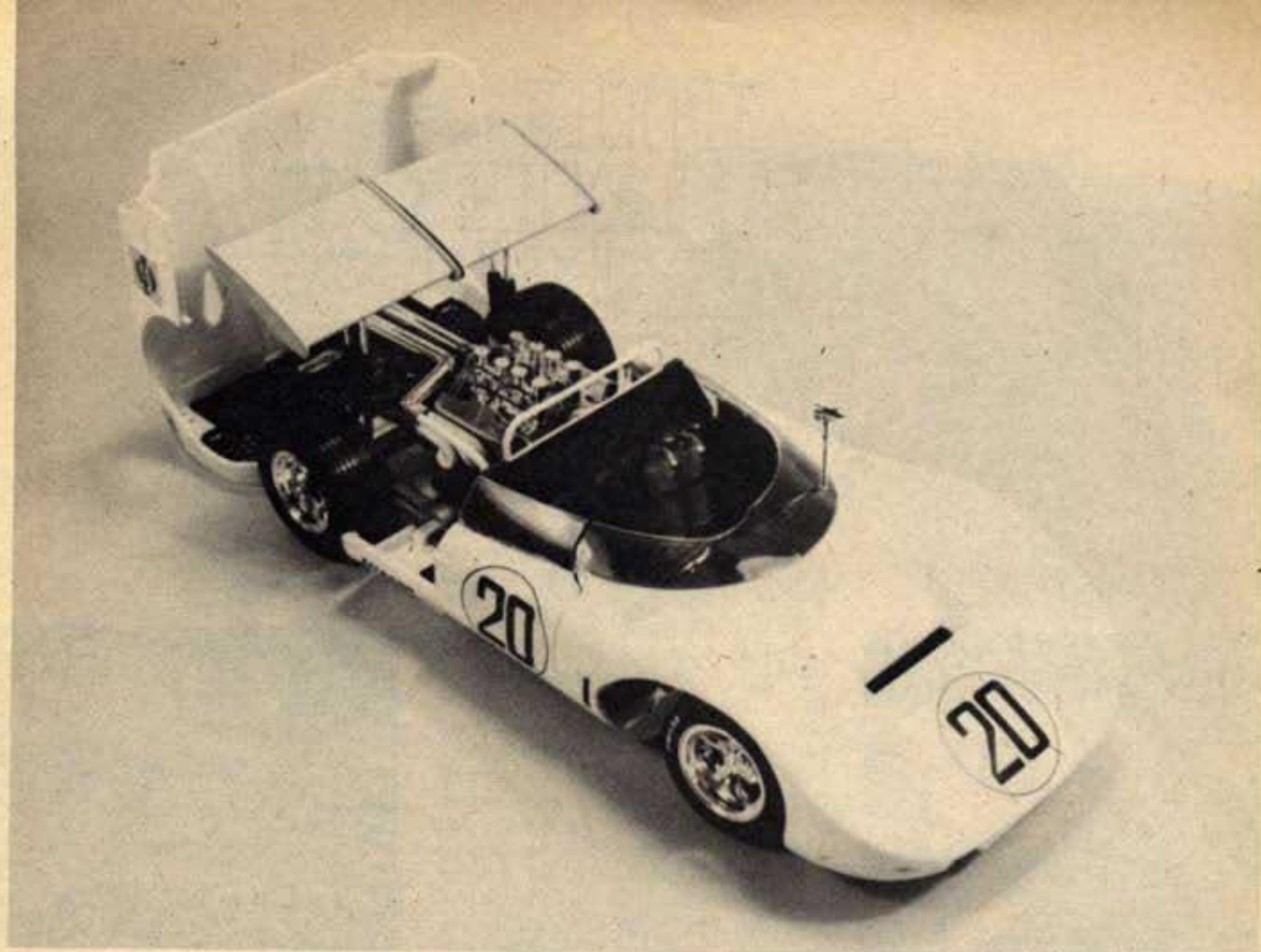


Three Mini-Coopers battle their way through the multi-level, 85' per lap home layout.

Looking down the lower straight from the bank on Bob Livingstone's challenging home track, as a Porsche, Mantis and a Lola fight for the lead.







## PARADE OF GIANTS



The scene was the fifth Japanese GP race in 1968. The Nissan company engineers had been soundly beaten previously by the outstanding Porsche Carrera Sixes. Nissan had a brand new car, the R-381. This beautiful sports/race machine utilized monocoque construction, consisting of a steel space frame and honeycomb panels. Along with the smooth lines of a contemporary racing machine, the ever-present "wing" appeared.

The R381 looks somewhat like a Chaparral, but the wings differed in

that the car had two different "aero-stabilizers," each linked to, and operating, a suspension unit. These wings served their purpose well and although the body did tend to lift on the curves, the counter action of the wings held the 381 right to the tarmac. The wings also aided in braking, as one would suspect.

The power plant was a Chevrolet V-8, Weber equipped, and capable of pumping out a 460 HP wallop at 6300 rpm. The power was transmitted to the wheels through a Hewland 5-speed

box, and the forward thrust was restrained by Girling's disc brakes.

History blessed the first few runs of the Nissan R-381. It won the fifth GP, soundly defeating the Porsche Carrera 10, and famed Lola MkIII. Encouraged by these wins, Nissan is looking forward to a profitable career in the field of high performance cars. If their sports cars are as solid and dependable as their patrol wagons, the American market has another very tough contender.

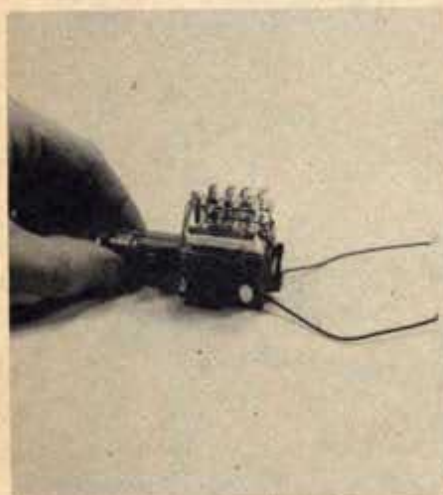




First, lay out the parts to make sure IMAI has included everything, according to instructions.



It was decided that to retain that "fiberglass" look, we should not paint this car. However it is a good idea to polish the white plastic with a high quality auto wax for the right effect.



The engine, according to instructions, is assembled. Details are checked by referring to the photos in the instruction sheet.



To make various lines and "tubing," take a piece of the plastic "tree," as shown, and heat it over a candle or lighter. When the plastic sags, pull away from the heat and pull it gently to make a perfect, flexible line. These "tubes" can be used for ignition wire, brake lines, etc. And they can be cemented, too.



Using Pactra's Primer White (SM2), spray the "bundle of snakes" exhaust tubes. A piece of clay stuck in the boxtop acts as a holder for these tubes. This makes the tubes look like they have a coat of heatproof paint.

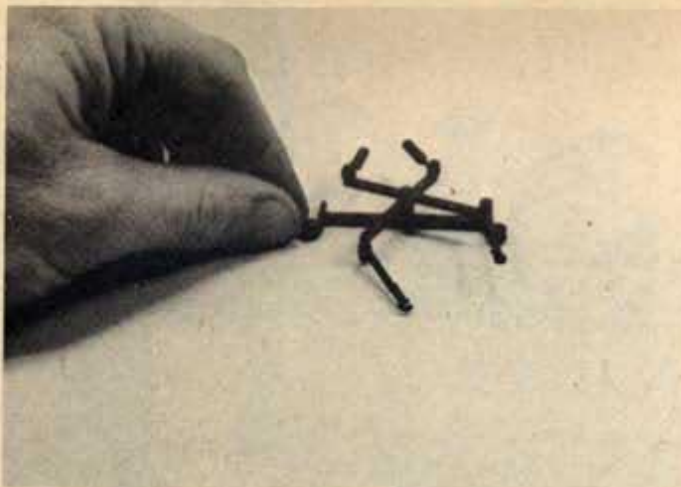


According to instructions, assemble the front suspension.

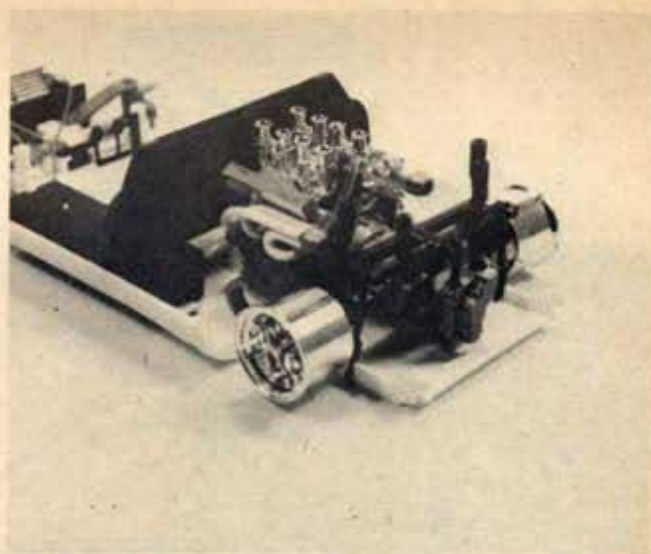
#### SPECIFICATIONS OF THE NISSAN R381:

Number of cylinders:	8
Displacement:	5461cc
Compression ratio:	12.4:1
Maximum output:	460 HP/6300 rpm
Maximum speed:	320 km/h plus
Fuel system:	down draught type twin-choke waver carburetor in quadruple arrangement
Ignition system:	scintilla-vortex magnet
Type of Transmission:	Hewland's 5-speed
Steering:	rack and pinion
Brake:	Girling's universal disc brake
Wheel:	15 inch with wheel base 2470 mm
Tread:	front, 1460 mm; rear, 1400 mm
Overall length:	4411 mm
Overall width:	1790 mm
Height (with a wing):	1265 mm
" (without a wing):	1005 mm
Overhang:	front, 925 mm; rear, 600 mm
Ground clearance:	100 mm
Gasoline tank:	160 l
Weight:	855 kg
Overall weight:	921 kg
Tire:	Firestone or Dunlop front, 4.75/11.30-15 rear, 6.00/11.30-15
Suspension:	front, double wish-bone rear, 4-link system

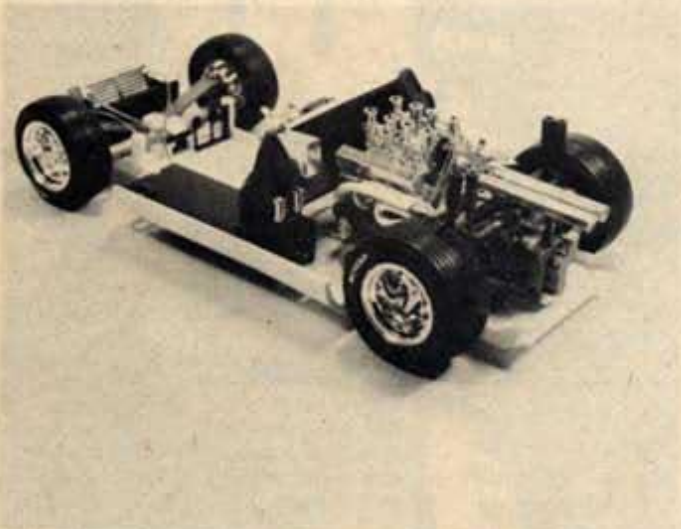




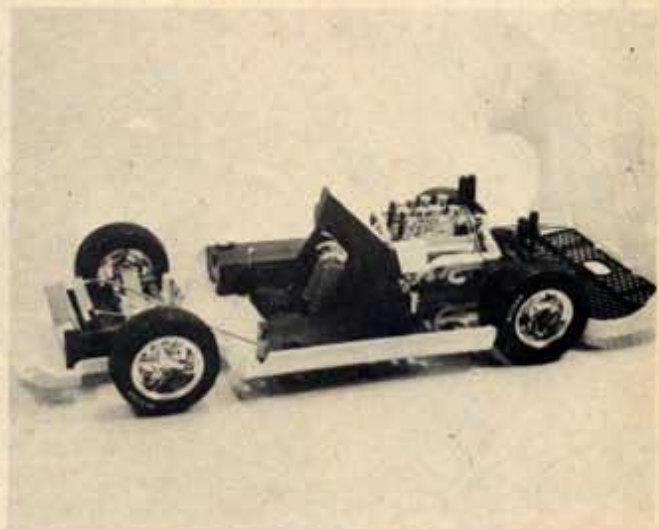
Now the rear suspension. Note, the builder should be very careful to install these according to instructions. If improperly assembled, they will not be right for the spoiler's mounting rods.



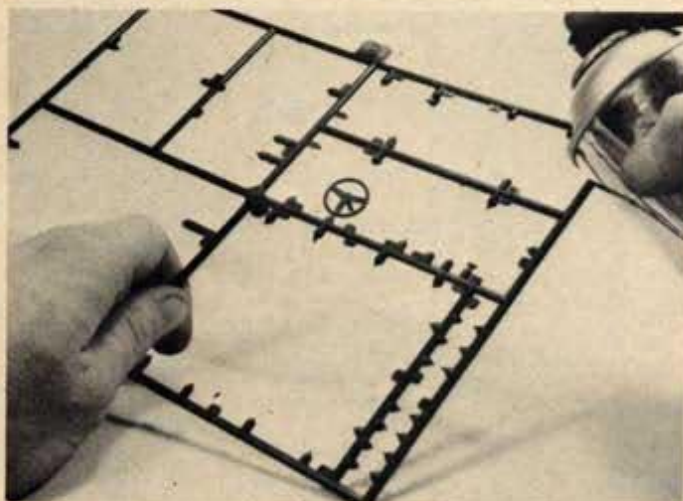
The engine, cockpit firewall and rear suspension members are all installed and checked for proper fitting.



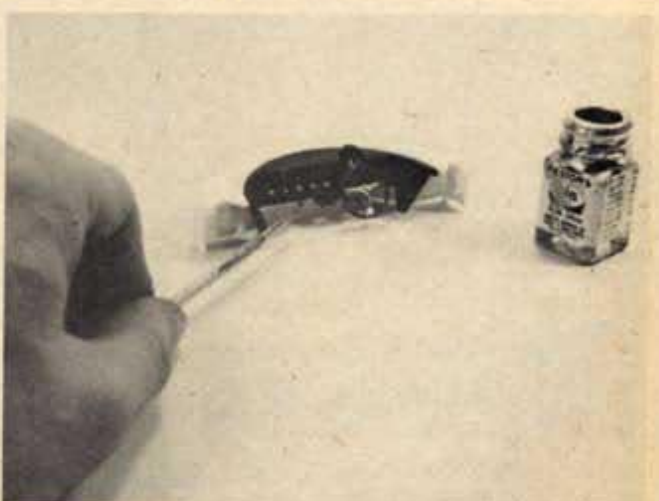
Tires, accessories and wiring are now installed to complete the underpan portion of the frame.



The upper body members are now polished and the attachment point is checked for proper pivot operation.

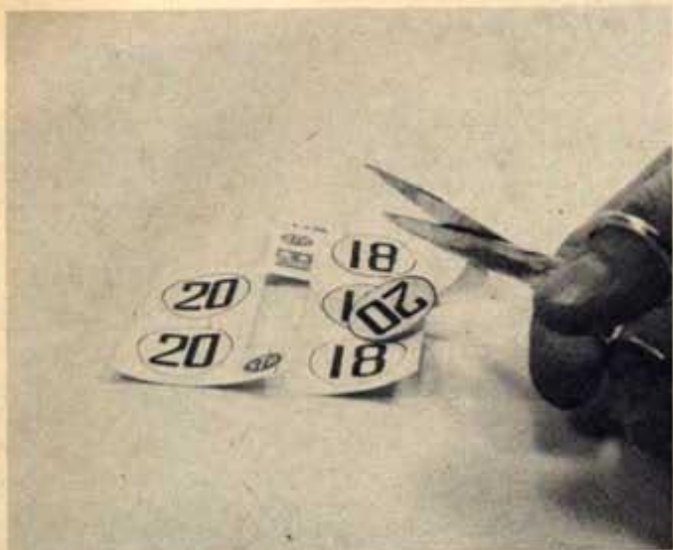


The steering wheel is painted a flat brown (red Oxide primer) on the tree. The frame is later painted with silver gloss.

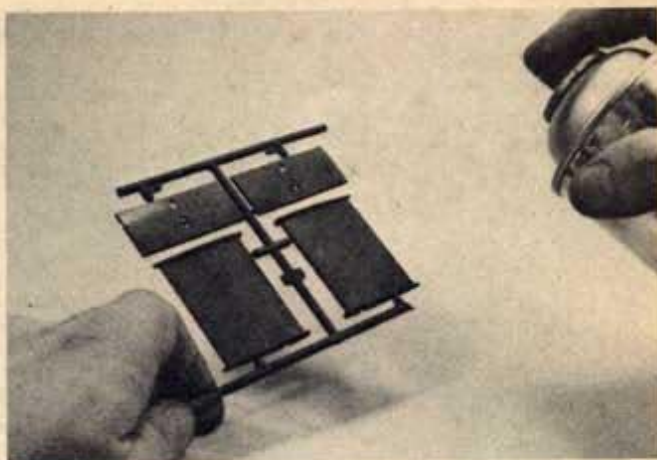


The cockpit and instrument panel pieces are cemented. Testor's old standard silver was used to detail the gauges and switches.

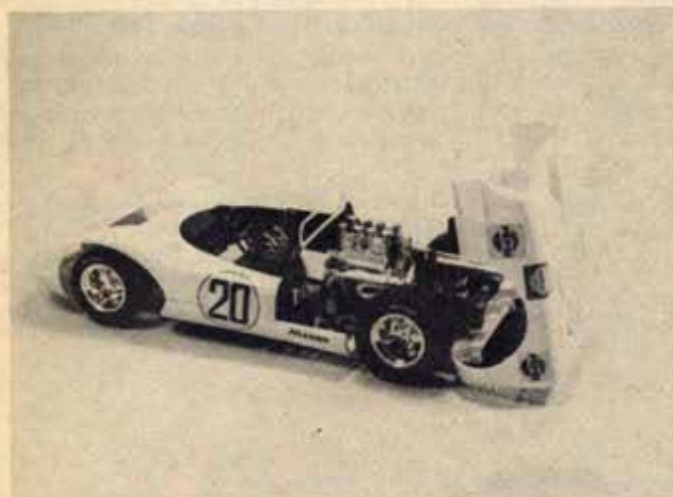




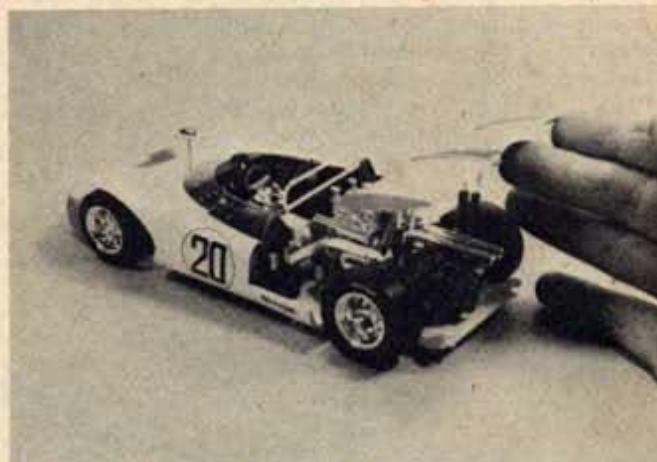
A good modeler will trim the decals as close as possible to get a "clean" realistic looking set of numbers.



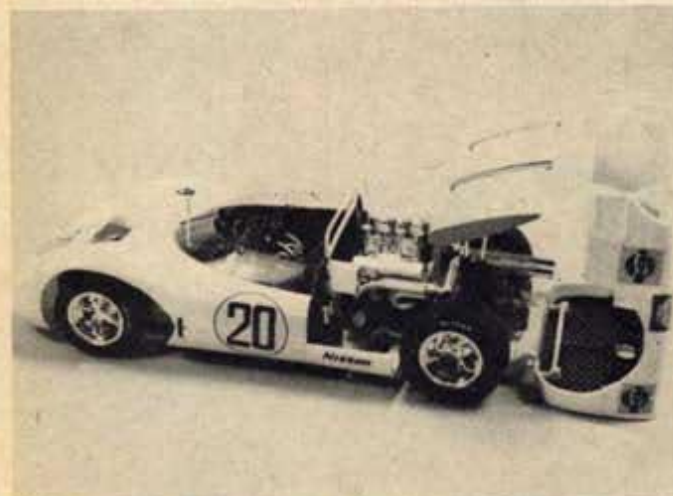
The "wings" are now sprayed with a primer to stop the red plastic dye from "bleeding" into the forthcoming yellow paint. If you are building the No. 18 version, leave these red, and polish.



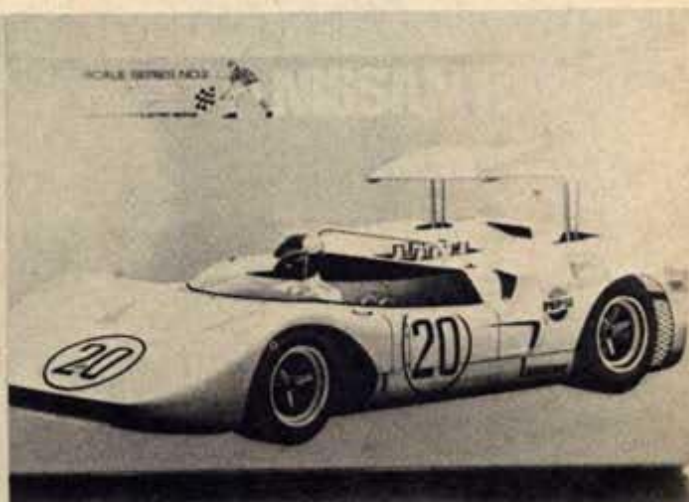
Body panels are now fitted and cemented where desired. The wings can be installed with the rear panel open or closed.



If you are going to leave the entire rear engine area open, and still want the wings, tilt the trailing edge up so the rear body panel can be left open without interfering with the wing.



Here she is . . . the beautiful, and now complete Nissan R-381 Sports car, second in our series of the "Parade of Giants" from Model Car Science.





# THE AMERICAN COLLECTOR

By David Sinclair

Hardly a day goes by that someone doesn't ask me personally or through a letter, "How did you ever get into such an unusual business as selling scale cars by mail?" Actually I didn't start in the mail order business selling miniature cars. I was employed as Advertising & Sales Promotional Manager for a large manufacturer and started a small mail order business as sort of a hobby (and, of course, hoping to supplement the old salary check a bit too, if possible). I advertised what I hoped were unusual gift items I had found in Europe in the pages of home decorating magazines.

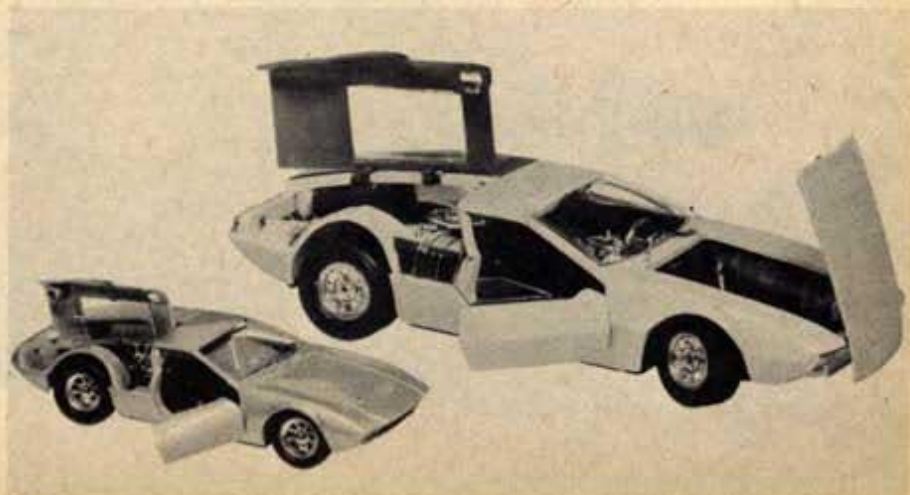
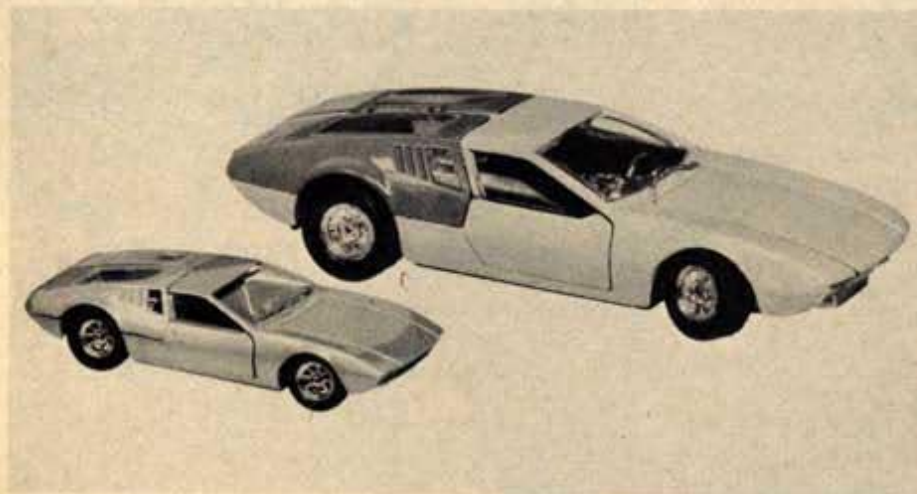
The first year I lost twice as much money as I grossed! The second year wasn't much better, and because I could not afford to go on losing money I came to the conclusion that a small mail order business dealing with miscellaneous items just had the odds against it. If you aren't going to have a big thick catalog of miscellaneous gifts, I said to myself, then you had better specialize so that all the items in your catalog relate to one another, and you can expect to get repeat business. What to specialize in? That was the problem. Some mail order houses specialize in Early American accessories,

some in sporting goods, some in flowers, etc.

While I was trying to decide on my specialty, I began re-reading the letters that sometimes come with orders. One of my most popular sellers in those days was a black porcelain ash tray with a silver plated Rolls Royce Silver Ghost mounted on it. "I loved that little car model," many people wrote. "What other kinds do you have... preferably without ash trays!"

I knew, of course, about Corgi, "Matchbox" and Dinky models, but these were being sold all over in department stores, toy shops and

Polito's 1/25 scale Ghia Mangusta de Tomaso (left) and Solido's 1/43 scale Ghia Mangusta de Tomaso (right) shown open and closed.





sometimes in drug stores. All three were manufactured in England but I reasoned that there must be miniatures made in other countries as well. After a good deal of searching, I found Rio of Italy, then (and still) the ultimate in detailed vintage models. At first Rio was reluctant (they thought the United States market would be too demanding for their limited production) but they hoped to have sufficient production to export to the U.S. within a year. I convinced them that I had just a small firm and wouldn't tax their production too much so they agreed to ship models to the U.S. I began to promote the Rio Cars for collectors early in 1965, and they were an immediate success. Collectors had never seen anything so accurate, so detailed, and certain today that they have every Rio number in their collection.

Well, I had picked the right specialty! Business increased seven-fold in 1965 and after that first little brochure showing the line of Rios, then numbering only seventeen models, I added Solido, Tekno, Polito, Mebetoy, Mercury, Dugu and many other lines. Over the years the business and the interest in collecting has grown. But it wasn't easy; it was a struggle all the way with years of building a mailing list of interested people through expensive advertising in many magazines; years of working a regular job during the day while running the mail order business evenings and on weekends. In those days I wore all the hats...advertising manager typist, bookkeeper and even packer and mail clerk. In July, 1967 I felt I had to make a decision. I could no longer do justice to two jobs. Should I sell my struggling mail order business (struggling because banks are not very generous with their money when it

comes to a "nut" trying to build a business selling little cars) and enjoy the "security" of corporate life, or should I resign the job and devote full time to building my own business in which I believed? A mail order consultant gave me the answer. (You think psychiatrists are well paid? The mail order "consultants" get triple psychiatrist's fee!) Their advice is usually worth it. "Do you realize," he said, "that the mere fact you are still in business after four years from a "kitchen table" start, and showing even a little profit indicates that you have beaten the odds of 500 to 1?" That was enough for me. If I had come that far, I had to go on. I resigned my position, even turned down an offer a year later to return with a 25% raise, and kept plugging away selling little cars.

Finally, after seven years my faith, determination and plain hard work is beginning to justify itself. In 1969 sales volume was ten times that for the first year I brought Rio to America and 140 times greater than my very first year in mailorder trying to sell those miscellaneous gifts and gadgets.

I must offer a word of thanks to those customers of the early years who were so faithful and patient. Too often one item or another was "out of stock" because there wasn't enough money to carry an adequate inventory. Now we pride ourselves on being able to ship almost every order complete within 24 hours of receipt in our office. Our warehouse shelves are full and our staff is efficient. Of course, sometimes the manufacturer throws us a curve. I saw Rio's Lincoln Continental in Italy in February, 1969. As of this writing, the first Lincoln has not been shipped from Italy, although we expected it in the fall of last year. (New Year's Resolution! I'll never

advertise another model until it is on my shelves!)

Well, that's enough personal chatter, but I've been asked by many for my story, so there it is.

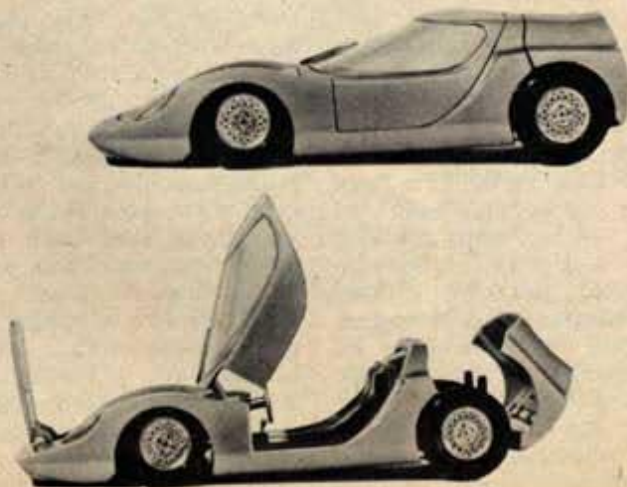
Many of you have been waiting for Polito's new 1/25 scale die-cast line. The first two arrived just before Christmas and they are great! Pictured here is the Ghia Mangusta de Tomaso by Polito and by Solido. The difference in size between 1/25 and 1/43 scale is clearly shown in this photo. The big one, of course, is Polito's. The little fellow is Solido's version of the same car. On Polito's model, both the center-hinged engine covers open as well as the front trunk which is opened by pushing on the right side of the dashboard. Solido's trunk does not open. Doors on both models open, however. Polito's has window glass showing rolled half way down while there is no glass in Solido's doors. Both models have spare tires and engines, although it's obvious Solido and Polito don't agree on what the Mangusta's engine looks like. Interiors on both are good, though Polito's has chrome steering wheel and shift lever and the most realistic speedometer and tach we've seen on a model of this size. The Polito version has steering and steering wheel really turns the wheels. Under the chassis Solido has no detail. Polito is loaded with it including twin chrome pipes, individual wheel suspension (which Solido omitted entirely on this model). Both are good models, so it's up to you which size you prefer.

The other Polito 1/25 scale currently available is the Alfa Romeo OSI Scarabeo. In many respects I feel this is even more attractive than the Ghia Mangusta, although orders for the 1/25 scale Mangusta have been double those for OSI. With its huge windshield that lifts with roof and sides for entry and exit, and big single wiper and dragon (or is it a serpent?) decal on front hood, it's a real attention-getter. The rear hood hinges as does the front "trunk" which has only enough room for the wide spare tire. The engine detail is terrific! Inside the cockpit you will find the foot pedals, shift lever and wheel all chromed as well as an adjustable chromed foot rest on the passenger side.

For some strange reason Polito painted these two models exactly the same shade of red-orange. The only difference being the flat-black hinged rear engine covers on the Mangusta and the black decal and green four leaf clover decals used on the OSI.

There will be two more 1/25 scale models from Polito in the near future. The famed CARRABO BERTONE and MINI COOPER S!

Polito's 1/25 scale No. 575 OSI Scarabeo.

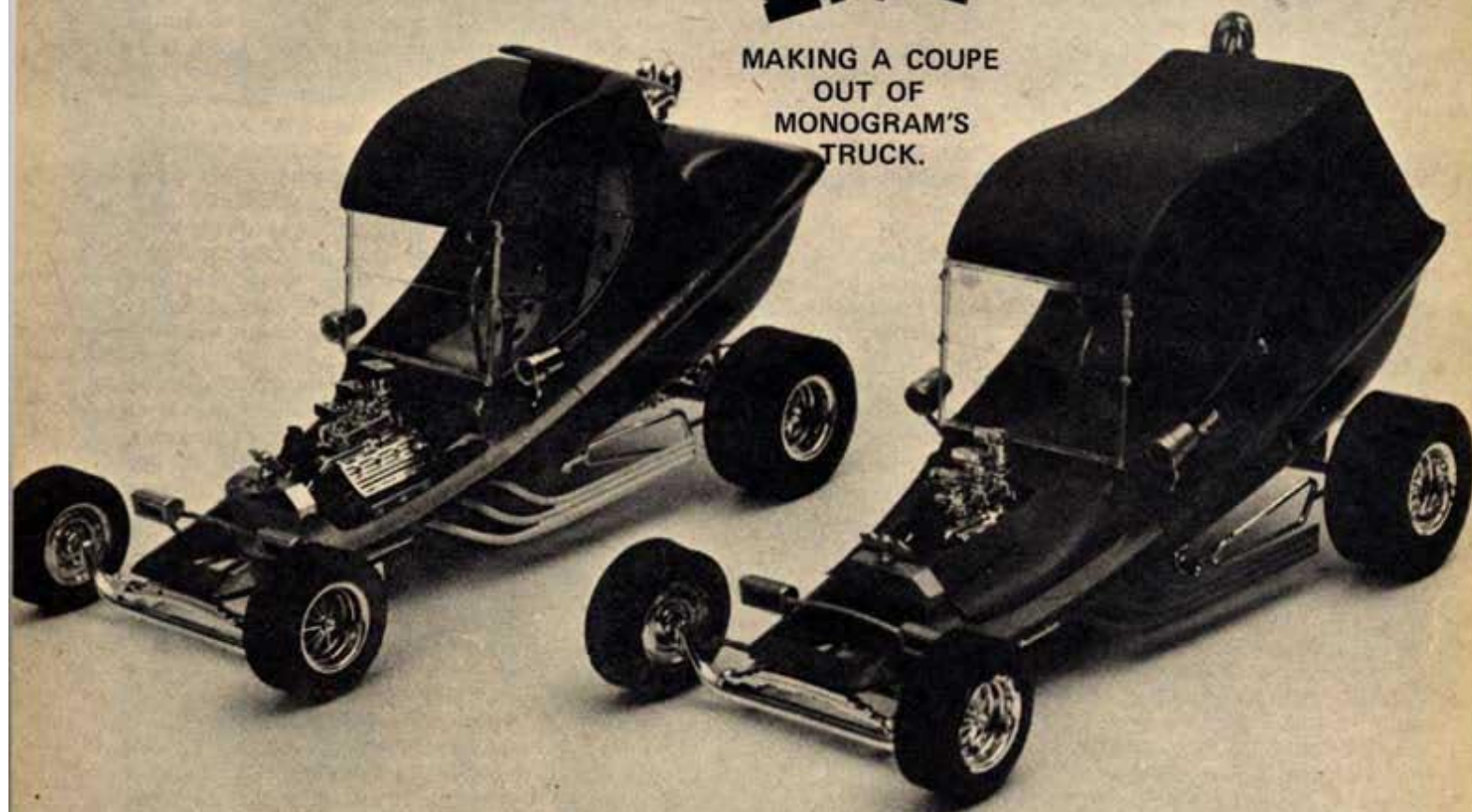




# CUTTING THE PIE

By Robert Schleicher

MAKING A COUPE  
OUT OF  
MONOGRAM'S  
TRUCK.



If customizing a "custom-created" car seems silly to you, focus your mind on the results we have achieved in subtle reshaping of the Tom Daniels-designed Monogram "Pie Wagon." Daniel's basic design is a futuristic Ford "T" type, in the form of a panel delivery truck. The "Pie Wagon" is among the best "show" car styles of the past decade. Our two-place coupe is merely a successful variation of Daniel's theme.

We can't recommend that you try such custom chopping with any of these specially designed show cars as occasionally "customizing a custom" can result in a catastrophe. The coupe version of Daniel's "Pie Wagon" works

out as well as it does because the basic form and shape of the coupe's lines continue the arch-shaped line and form of the original sedan delivery truck's roof, side windows and rear splash pan areas.

The basic body of the "Pie for a Pair," or the original "Pie Wagon" for that matter, can be further modified for a really unusual show car miniature by substituting different engines, lights, or wheels from other Monogram Daniels-designed cars. The coupe we assembled retains all of the stock kit accessory items to give you a better idea of just how much the change from panel delivery to coupe bodies makes in the car's appearance. The

relatively "free form" shape of the basic body panels makes the cutting and refitting of the cut-up body pieces easier than on most such cars.

Be sure that the combination of the now-chopped coupe front and rear pieces, and new rear turtle deck are exactly the same length as the kit's lower body panel. Each of the seams between the upper body pieces should be carefully filled with automobile metal-base auto body filler, as outlined in past issues of MCS, after the glue has dried for at least a full day. We elected to retain the full height of the rear window, recessing its lower edge behind the coupe's new turtle deck/trunk area. The lower edge could just





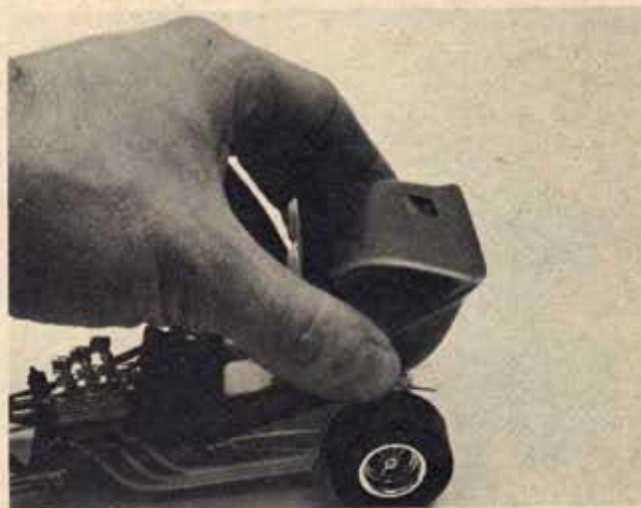
You'll need two of Monogram's "Pie Wagon" kits to recreate our coupe. Surf board is from "Garbage Wagon".



Cuts across rear of body should be at exact right angles with bottom edge. Mark with tape or ruler and pencil.

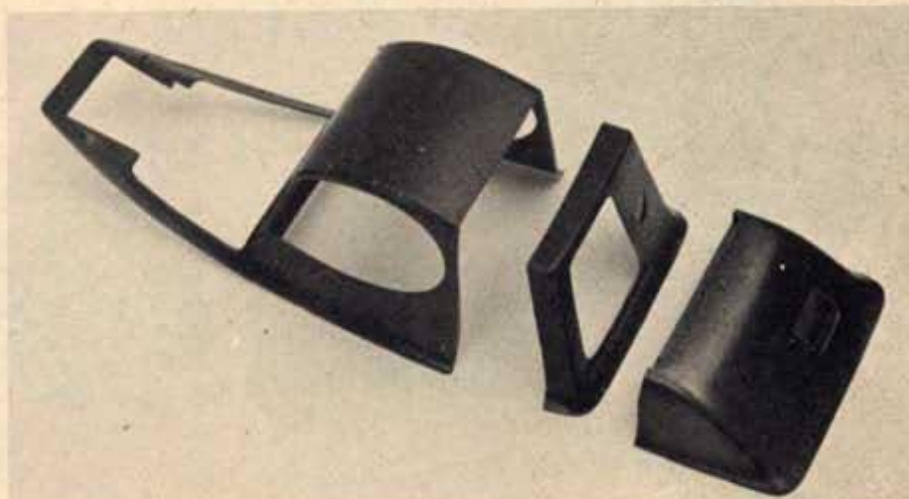


Make actual cuts in one of the upper body halves with a razor saw. Sand away any burrs left by the saw teeth.



Rear turtle deck/trunk is cut from the bottom body panel in second "Pie Wagon" kit. License plate area is filled in.

as well have been raised about 1/2-inch and/or the original window filled in with scrap from the second "Pie Wagon" kit (the coupe conversion requires two "Pie Wagon" kits), and an entirely new rear window carved in. If you opt for a new rear window shape, we'd suggest you try to match the slightly misshapen crescent of the car's side windows. The surf boards, from the Monogram "Garbage Wagon," or whatever, are obviously not essential. Those stock "Pie Wagon" tail-light brackets do make unusual clips/clamps though. Now that there's a choice of either coupe or panel delivery body styles, we wouldn't be a bit surprised to see Daniel's "Pie Wagon" replace the Model "T" Ford as a basis for customized rods, at least on the model car show circuit.



New front, coupe back, and turtle deck pieces must be same total length as stock lower body piece. Check fit before gluing.

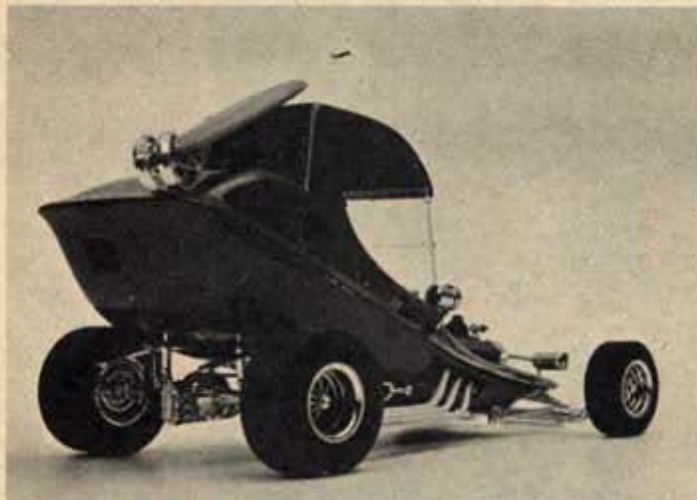




Glue modified body pieces, dry overnight, then fill seams, sand, prime, and apply final color paint coats. Wax to a high gloss.



The engine, wheels, lights, and interior were left exactly as supplied in the kit. Any or all could be replaced with others.



Two of the "Pie Wagon" tail light brackets are mounted on the turtle-deck to support the surfboard, all other trim is stock.



Box stock Monogram "Pie Wagon" (right) and its converted coupe sister show just how much simple rear body changes have altered overall appearance of the car.



# QUESTION SESSION

By Brick Price

Each month MCS will answer questions of general interest. Address all queries to Question Session, C/O Brick Price, 11795 Gateway Blvd., #3, Los Angeles, California 90064. Only those questions with a self-addressed, stamped envelope can be answered personally, time permitting.

We're eager to answer any questions you may have about static model building, die-cast collecting or HO racing. We will try to answer the most commonly asked questions, in this column. Sorry, time does not permit personal replies. The one question that constantly arises is, "Where can I order a particular model by mail?" The only mail order place that we know of that stocks current as well as odd-ball items is Auto World. Check their ads elsewhere in this issue.



I would like to know how to give a "rubber look" to water hoses on my models.

Everett McClelland  
LeRoy, New York



The type of rubber used on water hoses is a matte black finish. Flat black doesn't "make it." Craft shops carry matte spray paints that do, though. To further enhance their appearance, try putting a ring of 1/64" wide Buzco Chrome tape around each end of the hose to simulate clamps.



Would you please tell me where I could get a kit on wiring a model and where I could get some velvet with self-adhering back for interiors?

Stan Taylor  
Springport, Mich.



Check Auto World's catalog for the wiring kit. I don't know of any self-adhering velvet, but most craft shops or paint stores carry contact paper that looks like velvet.



I have decided to get into slot cars (HO) and need some help. Do you know where I can get a complete "know it all" book?

Dale Bjorklund  
Hammond, Indiana



Auto World has several magazines on HO cars, but no hard bound books that are as comprehensive as you'll probably need. MCS is getting heavy on HO so try looking in some back issues for construction tips and hop up articles. (Editor's note: check "New Products" in this issue for Auto World's new H.O. book)



I would like to know what Perma-scene is and where I can purchase it. HELP!!

John Pohling  
San Diego, California



Perma-scene is a lightweight, organic, non-toxic scenery construction material that replaces plaster on track layouts. When dry, it takes on the appearance of natural earth. It can be dyed to simulate grass, mixed smooth to simulate earth, or used "rough" for shale formations. In most instances aluminum screen or folded newspapers will support the Perma-scene. Alterations are easy to make if you get tired of what you've got. Most model railroad shops carry one pound bags of it for about a dollar.



Where can I get a scale model five h.p. engine, preferably Briggs and Stratton? Where can I get a 1970 MPC catalog?

Tommy Weigand  
Woodbourne, New York



The only engine I know of as small as the B&S is the Bonanza Ace 100 in 1/10 scale by IMC. You'll even get a mini-bike to go along with it! MPC doesn't put out a catalog to the public, but their entire line appears in Auto World's catalog.



Every time I paint the letters on my model tires, the paint wears off. How can I keep the paint on, or is there something else I could use?

Randy Pugh  
Center Point, Indiana



Can you give me some tips on painting the letters on model tires? I try painting them, but the paint just smears.

Jerry Toliver  
Arvada, Colorado



I've found that gloss white paint will remain tacky far too long and will easily rub off. Use a No. 000 brush and flat white enamel. Allow some of the paint to get tacky in the bottle cap. Brush several light coats on the lettering surface and allow the paint to dry between applications. The best looking tires are the white plastic ones found in some AMT kits. Paint the tires matte or flat black. Allow the paint to dry and scrape the paint off the letters with an X-Acto knife.



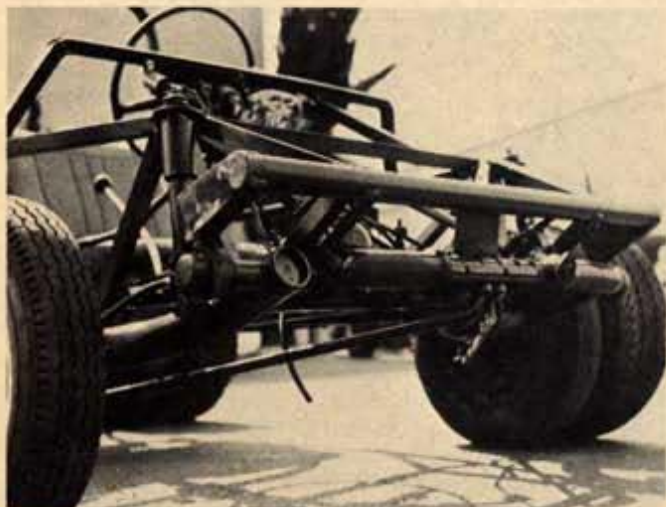


When you see one of those misshapen eggs on wheels called a Sabaru rolling through traffic, you wonder: Who're they trying to kid? What possible value can *that* have as a car? Hilder (Tiny) Thompson, genial general proprietor of the Burro buggy works in Santa Ana, Calif., wondered too. The next time he came across one in a parking lot, he picked it up (Tiny's a big broad shouldered man), turned it over, and took a look.

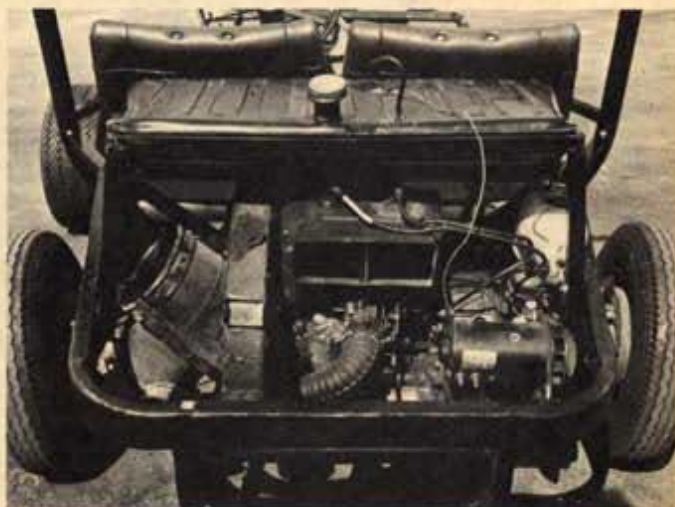
He discovered a single trailing arm front suspension with transverse torsion bar; rack-and-pinion steering; trailing arm rear suspension with transverse torsion bar; and air-cooled 25-bhp two-cylinder engine with oil injection; and a lot of light weight, easily installed (or removed) parts and components. It was obviously the same layout and idea as the Volkswagen, but in miniature.

"Ah ha!" thought Thompson.

"There's what this rolling joke is all about! It's a ready-made parts bin for a mini-buggy." So he set about designing a Burro-type buggy frame around the egg-car's innards and came up with a mini-Burro. He's not sure yet whether to call it a Burrito or a Suburro or what. But the under-600 lb. runt of the litter (surrounded by other Burros, it looks like a shetland pony among Arabian stallions) turned out to be an appealing little feller.



Quick-acting rack-and-pinion steering is part of the single trailing arm front suspension moved intact from the Subaru to the mini-buggy.



Fully shrouded lawn mower-like engine provides enough power for average off-road conditions, has oil injection for two-stroke operation.



# BONZAI BURRO!



## SUBARU/BURRO SPECIFICATIONS

Wheelbase, in. ....	.60
Overall Length, in. ....	102
Width, in. ....	.59
Weight, lb. ....	.660
Engine Type ....	air-cooled two-stroke
Displacement, cu. in. ....	.22
Horsepower ....	.25
Wheel Size, front ....	10.0x6
Wheel Size, rear ....	12.0x8
Tires, front ....	20x8-10
Tires, rear ....	23x10.5-12
Builder ....	Burro Company 1353 Santiago Santa Ana, Calif. 92701

**A DWARF-SIZED  
BUGGY  
TURNS A JAPANESE  
JOKE CAR  
INTO NO  
LAUGHING MATTER**

So appealing that the shop was closed for the day and Tiny took the local Subaru distributor out to the nearby off-road playground for a checkride. They returned dust encrusted and laughing uproariously. The minibuggy had taken to the wilds like that was where it has belonged all the time.

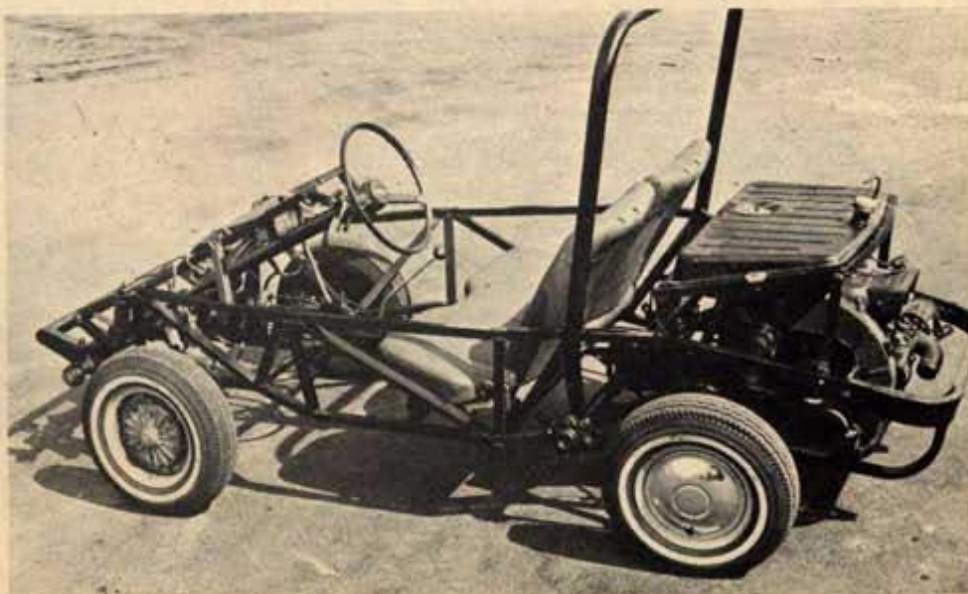
Subaru officials — the American importers and the Japanese manufacturers — understandably are excited about the Suburro. They even liked its

rough-hewn, typically Burro looks (but then they must like the original egg-car's appearance, too). Unlike Volkswagen's policymakers, who had the benefit of the buggy boom without supplying a single new part, the Japanese firm's people are figuring ways to supply the necessary components without the bother of wrapping them in that ugly body first.

As for Tiny, he sees his brainchild as a replacement for trail bikes, providing off-road transportation in reasonable

comfort for two. He envisions the super-light mini-Burro hung from hooks on the back of larger campers and motor homes, taking no more space and a pair of two-wheelers. It'll never go rat racing over the big sand dunes or rock bounding through the big boulders like the bigger buggies, he says, but then two guys can't lift and load one of the regular ones inside the bed of a pickup truck either.

*Like all Burros, the mini-buggy frame is all welded 1-in. square steel tubing with integral rollbar and engine protection basket.*





# "SECTIONING" SECRETS



In the "dull days" of the fifties, when Detroit was clumsily working its way away from the upright "classic" style of the thirties to the sleekness of the supercars of the seventies, the Kalifornia Kustom was the best looking car around. The car customizers in the West and the East had decided that America's cars were just too much like trucks in shape and form. To make metal reworking look more like magic than lead, the customizers did everything possible to reduce the height of the then-modern sedan. Much of the travel of the spring suspension was removed to first lower the car over its wheels.

The next step involved the actual removal of part of the body, with anywhere from a few inches to a full foot taken away horizontally between the tops of the fenders and the bottom edges of the body. "Sectioning," they called it, for the simple reason that a section of the body was removed along the beltline of the car.

The third step in achieving the lowest possible silhouette was removal of some of the material from each of the door and window posts to lower the roof of the car. This operation was dubbed "chopping." If a typical "fif-





For contest-quality custom body "sectioning" you'll need a "hot knife," flat file, No. 500 sandpaper, body filler, and drafting tape.

ties" Detroit sedan were given the full customizing treatment of lowering, sectioning and chopping, the final result looked more like a car of the seventies than one of the thirties. Those 1950-era custom show cars were modernized to an extent that you usually only see on "cars of the future" from the Detroit automakers design studios in the seventies.

To the today-oriented car builder (real cars or models), a car of yesterday can be the inspiration for a modern motor car. While the customizers of the fifties could only guess at what might be accepted design practice in 1970, we can look around the streets and showrooms for more current custom car ideas.

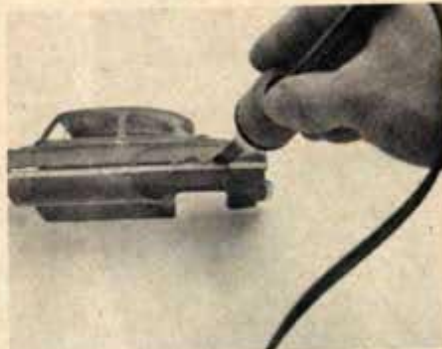
Our 1/25 scale Revell '54 Chevy "Highboy," for example, has the clean surfaced body panels, mag wheels, wide rear slicks, and narrow front tires that are the most universally accepted design standards of the seventies.

The January issue of *Model Car Science* included a complete rundown on the art of "chopping" (page 50). "Sectioning" a model car involves much the same techniques outlined for "chopping."

The various cuts we show on these pages could just as well have been made with a razor saw. We picked the "hot knife" for use in illustrating the "sectioning" technique because it is the modeler's best choice for this work. The "hot knife" is basically just a wood-burning tool with a special knife-bladed tip. X-Acto and Auto-World can supply the tool for about \$4.00. The length and depth of the cuts necessary to section a model car body would be difficult to accomplish with a razor saw. Several separate cuts would be needed from the front, rear and each side. With the hot knife, a single, continuous slice can be made around the body. Like a top chop, the "sectioning" will require some forethought if you expect the sectioned body panels to come anywhere near aligning with one another. On most 1/25 scale models, only 1/6" to 1/8" can be removed from the body's lower half without complex reshaping of grille or trunk lid areas. If you keep within this minimum, and if you are careful to keep the first and second cuts exactly parallel, sectioning is really no more difficult than building and assembling a stock kit.



Buy drafting tape to match the amount of material you wish to remove from the '54 Chevy's height and apply parallel to bottom edges.



Plug in the hot knife, allow it about an hour to heat, then start slicing along the top edge of the tape cutting line.



Use only about 1/4" of the tip of the hot knife, varying the speed of the knife's path through the plastic so cut is even.



Remember that the inner body panels must be cut also. Inside of engine bay has been marked with tape "cutting line."

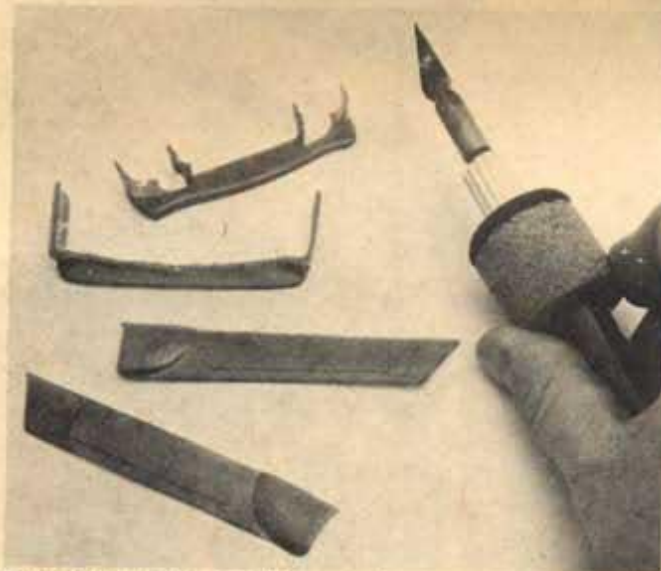


The amount you are "sectioning" (removing) from the '54 Chevy's height can be cut from the sliced-off lower front.

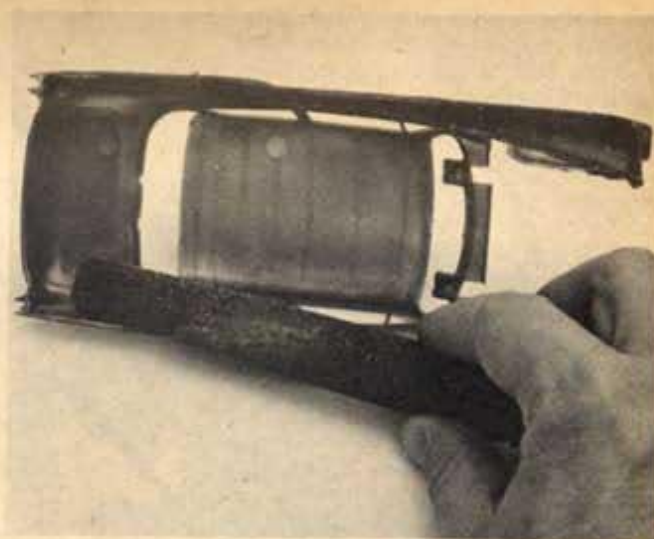


Material to be removed from side panels is also easier to remove when panels are cut away from the main body piece.

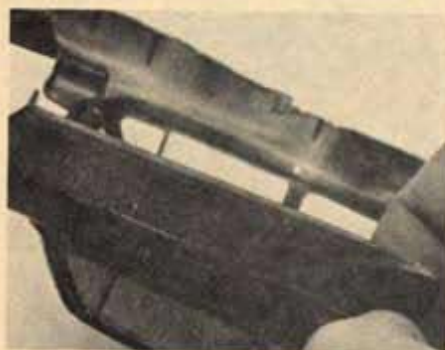




Each of the lower panels has now been reduced in height by the amount the body is to be lowered or "sectioned."



File the tops of the lower body pieces and the bottom of the main body piece perfectly flat to remove burrs, and even the edge.



"Sectioned" lower body panels of Revell '54 Chevy can now be glued firmly in place along the same edges where they were originally attached.



After glue has dried for at least a day, the seams can be filled in with auto body filler to hide "sectioned" lines.

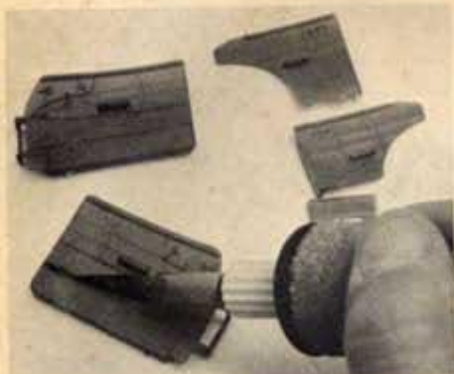


Sand filled-in "sectioning" seams with the No. 500 sandpaper. Add more filler, if necessary, to completely hide the seams.

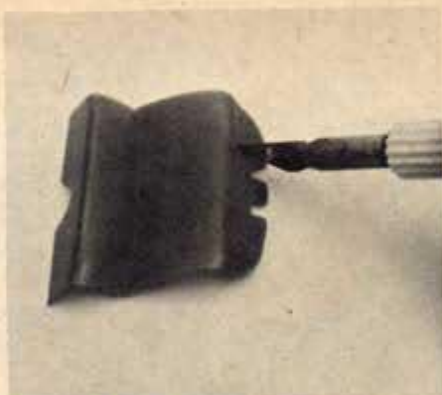


'54 Chevy body can now be primed, painted, and the chrome and clear parts glued in place. Door lines have been recut along seam.





The height of the interior panels must be modified to match the exterior. Door and back seat pieces are shortened, here.



Rear of back seat molding is cut away so the seat can be leaned back to clear back window after interior is inserted.



Top half of interior footboards must also be cut down to clear underside of dashboard. Check fit of parts before cutting.



About  $\frac{1}{4}$ " must be removed from center of rear interior floor to clear the wide Revell rear tires on their shortened rear axle.



Seats are glued to modified floorboard piece and full interior painted and detailed before gluing in place in body.



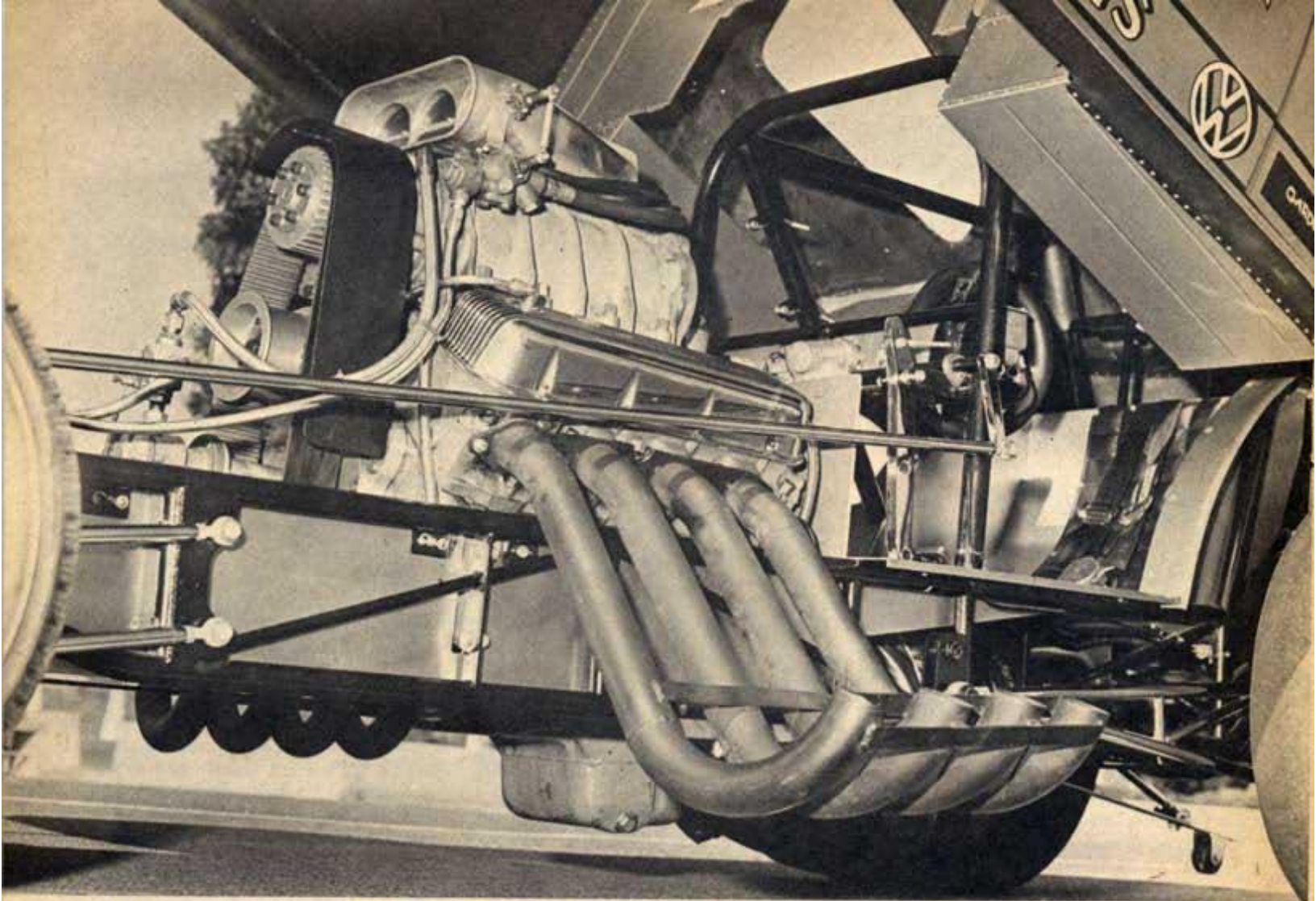
About  $\frac{1}{8}$ " is cut from each side of the rear axle so super-wide Revell rear tires can fit up inside body. Axle is glued to frame.



With rear axle against frame, and  $\frac{1}{8}$ " removed from top of front suspension, the '54 Chevy body sits a full  $\frac{1}{8}$ " lower on chassis than in stock Revell '54 Chevy "Highboy" kit.

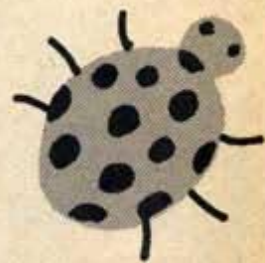






*427 blown Chevy engine sports zoomie headers, Sig Erson cam, Cragar manifold and Enderle injectors. Gold anodized aluminum paneling surrounds roll cage and frame.*

# THE DURACHROME



WARREN GUNTER'S FUNNY "BUG" PROVIDES PLENTY

Photos by Terry Blevins

OF EXCITEMENT IN THE WILD FUNNY CAR RANKS!

Considering that there are more Volkswagen bugs on the roads today than any other single model of car, it's very surprising that more of their beetle-like shapes haven't found their way into funny car racing.

At present, there are only a couple of funny car drivers that are brave enough to run the unaerodynamic VW fiberglass bodies. One of these drivers is Warren Gunter. Gunter, who formerly drove an injected 427 '23 "T" Coupe, has put so much effort into his funny car that it holds the title of the world's fastest (and maybe most beautiful) VW.

Painted a wild candy-apple red, the Durachrome Bug is powered by a blown Chevy 427-cubic-inch engine. With this mill the Bug has turned in a trap speed of 185 mph and an ET of 7.71 seconds. But getting the vertical-bodied car to travel that quick has been no easy task. Gunter had to seek the help of Bill Temple, a well known fiberglass body

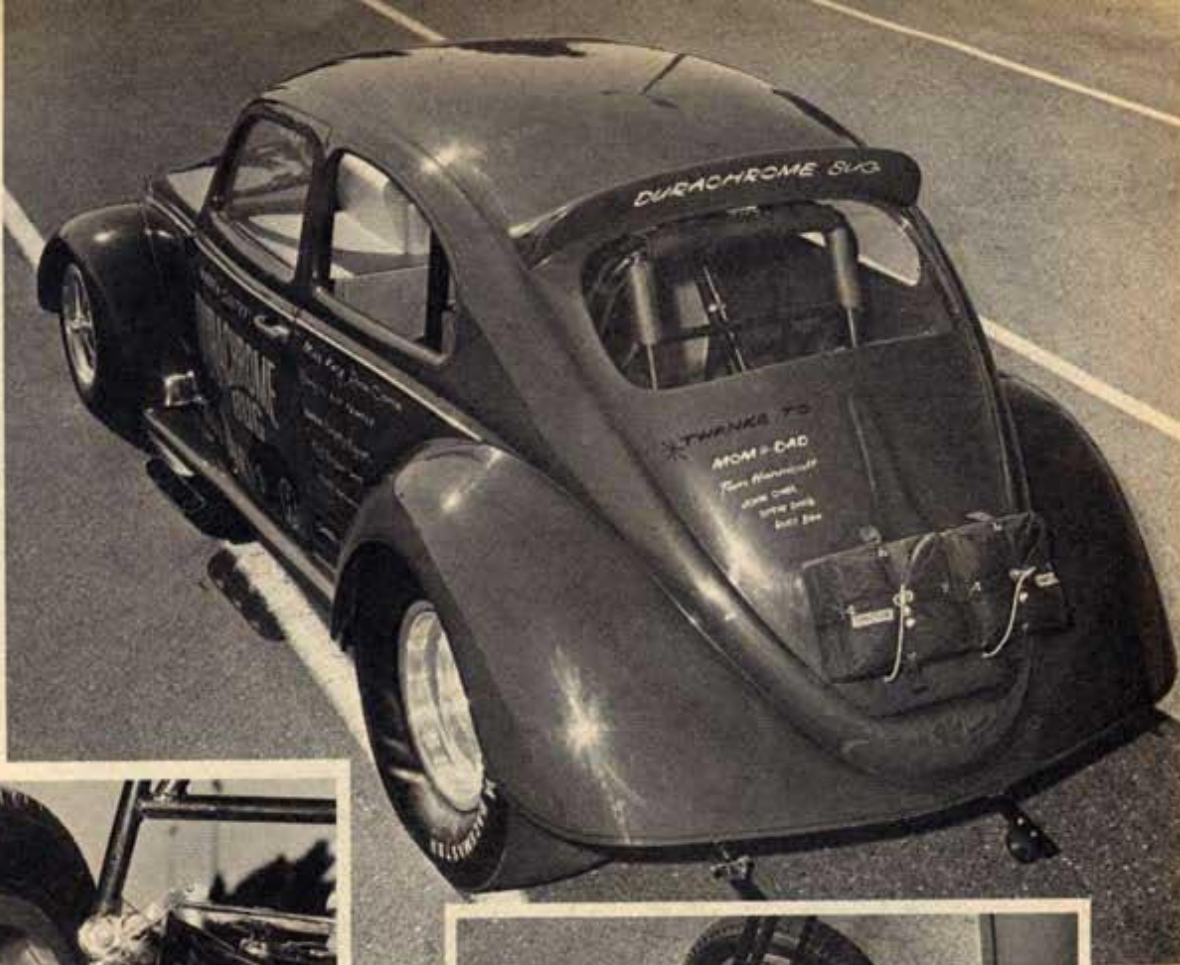
builder, to help him build a shell that would be stable at over 150 mph.

The first problem they found was that the new-model glass shell, which they had planned to use, needed a smaller, old-style windshield to gain the strength needed to withstand the tremendous wind buffeting encountered at top speeds. The next change they made was in lengthening the nose. Besides allowing more room for the powerplant, this elongation also increased the wheelbase by about 15 inches to make for better weight distribution. The final addition to the already greatly modified body was a spoiler above the rear window to reduce aerodynamic lift. In order to retain what was left of the stock looks, door handles and chrome trim were added.

The innards of the Bug also received some unusual treatment. All the aluminum paneling was gold anodized. This gives the car a finished show-car look not often found



Although Gunter's VW funny car is considered to have a 1970 body, mold actually came from a pre-1967 model



Beautifully chromed front-end parts include coil springs over Koni shocks. Tires are Pirelli Cinturatos.



Custom-made tanks contain fuel and water and have flip-top caps to make filling quicker.

in an out-and-out racing machine.

The chassis and traction bars for the Durachrome beetle were constructed of chrome moly tubing. Coil springs over Koni shocks provide the suspension at the front and rear. In front, mounted directly behind chromed steering rods, are two custom designed square tanks. One holds fuel and the other, unlike a stock VW, holds water to cool the engine.

A funny car, in order to be as fast as it is humorous, must have a powerplant that is second to none. Gunter's car uses a GMC blower, Cragar hi-rise, Enderle injectors and a Sig Erson cam on the 427 Chevy block to insure a winning combination.

Coupled to the engine is a TorqueFlite gearbox. It has been beefed up by C & O Automotive to withstand the punishment transmitted from the blown-fuel motor. The differential also is a Chrysler product, although it is only 36 inches wide and uses Olds axle flanges. The Oldsmobile

flanges were fitted so the Hurst/Airheart dual spot discs could be attached.

Other safety features, besides disc brakes, are a Simpson flak shield, Simpson dual brake chutes and full safety harnesses.

Sponsors for the Durachrome Bug are Durachrome, Inc., and Don Burns Volkswagen. Durachrome, Inc., manufactures a complete line of automobile accessories and Don Burns Volkswagen, located in Garden Grove, Calif., is a VW dealership which has become actively involved in road and drag racing.

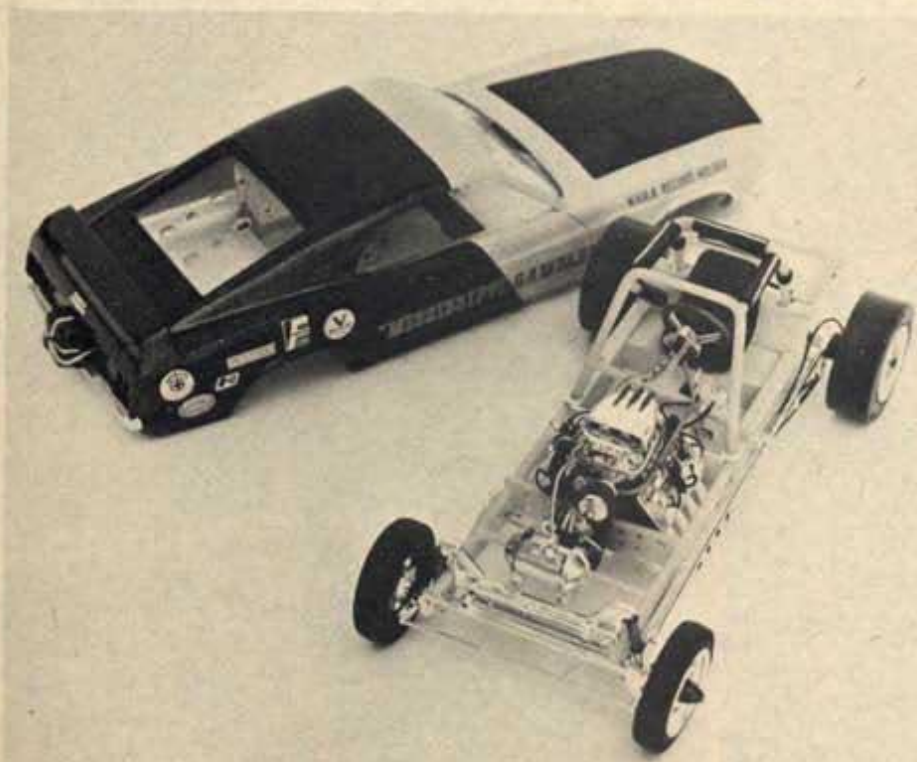
Warren Gunter probably has many reasons for driving a VW funny car, but we suspect his main motive comes from the tremendous crowd appeal of the Bug. Volkswagen owners are so numerous that Warren will never run out of fans to cheer him on!



# MODEL OF THE MONTH

## HERE'S WHAT YOU CAN WIN!

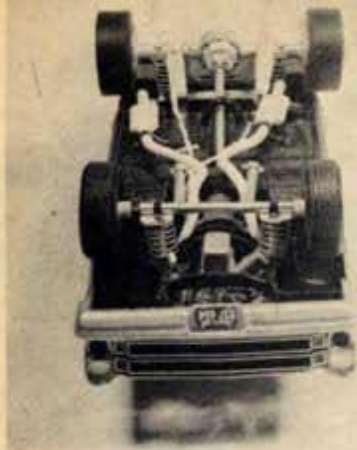
The first place winner of our Model of the Month contest receives this fantastic Dremel No. 261 Moto-Tool kit – a \$32.95 value! The kit contains the following: Powerful No. 260 Moto-Tool, 34 accessories including high-speed steel cutters, grinding wheels, wire and bristle brushes, rubber polishing tip, sanding discs, drum sander and sanding bands, mandrels, dressing stone, finger grip extension, collet wrench and 1/8", 3/32", 1/16" and 1/32" collets, all in a molded polyethylene storage case! A magnificent, life-time tool set that is perfect for modelers.



It impresses me to see the constant flow of really good looking models cross over my desk each month! Jeffrey Pollizzotto, Box 121, 30 Evans Way, Boston, Mass., 02115, is the "Top Dog" and winner of our Dremel tool this month. Jeff didn't indicate if his other hobbies include photography, but his pictures smack of as much quality as his funny car. Basically, the "Mississippi Gambler" is AMT's 1969 Mach I funny car. All trim was removed to give the car the appearance of glass. The front grill and rear side scoops are filled with putty to streamline the shell. The moulded rear spoiler came from a '69 Cougar kit while the front spoiler is home made. "Gambler's" windshield is cut to fit around the blower and the backlight drilled to release trapped air in typical F/C tradition. The chassis and engine are completely detailed with ignition, fuel and brake lines. The engine is a Ford 429 painted with three coats of Ford blue. The body is painted lemon yellow, flat star blue and flat black.







I've seen fanatics on detail, but Don Swavely, Jr., of Annandale, Va., is the wildest yet! His car started as a 1966 AMT Ford Galaxie 500. The body was modified to simulate a fiberglass body. A bubble hood scoop with open vents is a necessity to clear the quads on the 427 cubic inch Ford. The engine compartment is unreal! Minute details like a drain cock and wiring for the headlights should indicate how far the detailing goes. The chassis wasn't neglected, either. The front wheels were moved back nine scale inches while the rears were moved forward three inches. Many parts were scratchbuilt such as the front torsion bars, coil springs with operating shocks and safety straps. The paint is four coats of Sapphire Blue Metalflake rubbed out and waxed.



Vas iss loss? Ist dot ein BeetleBug? Nein, Das ist ein Wild Volks von Herr Mike Tyburske of San Diego, California. Mike did all of the great photography work on his autobahn highboy himself. Super tall Volksbuggans don't need to suffer from inferiority complexes when they're powered by a haulin' Hemi. The engine and chassis detailing is very good as well as the flawless green lacquer paint. Zehr Gutt, Mike!







Every so often we get a nearly stock entry that is too pretty to pass up. Bill Cary of Markham, Illinois, can be very proud of his longnose Mustang. The engine is detailed with fuel lines and wiring. The velocity stacks are Charger items while the slicks and wheel came from the Beer Wagon. The paint job is a very smooth Testor's yellow. For their sake, Bill, you ought to keep your "long nose" out of other peoples "funny" business.



"Is that your 1970 Maverick, Roger Galliazzo?" "Yep."

"Did you send away for 'er up at the Ford Corral in Detroit for a buck?" "Yep."

"Was it difficult to shorten the MPC "Super Cat" chassis complete with a Boss 429 to fit in place of the stock chassis?" "Yep."

"The engine with Supercharger is really detailed to the hilt, isn't it?" "Yep."

"I'll bet Massucci's Ford in your town of Geneva, Ohio, is proud enough of your model to give you a '70 cobra to work on next!" "Yep."





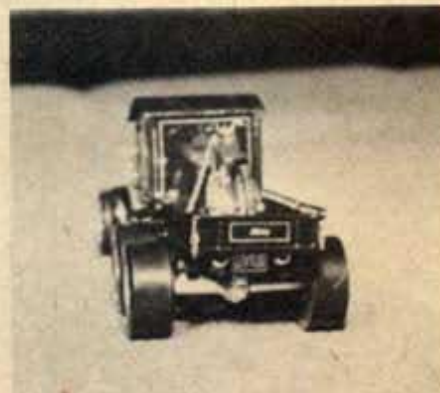


I almost blew my mind when I saw this car by Warren Ryanes of Newark, New Jersey! At first, it looks like a modified '68 or '69 'vette, but it is Monogram's 1/8 scale "vette. Fifteen tubes of AMT putty and cardboard were used to form the rear spoiler and flush rear deck. The pointy nose and front spoiler require many gobs of putty as well. After 24 hours, the entire body was sanded and painted with twelve coats of leaf green paint. It's too bad you didn't think of this in 1964, Warren; you could have sold the idea to GM!



If you take this truck by Louie Allison of Denver, Colorado, and the bike, paint them purple, and have "Big Daddy" build them, you could then call them the "Grapes of Roth!" The truck was originally AMT's "T" Fruit wagon. The pick-up bed was lengthened 1 1/4 inches and the chassis 1 1/2 inches. The bed is covered with wood grain contact paper. The engine is a

highly modified '48 Ford flathead from IMC's kit of the same name. The front tires are from a '68 Corvair and the gears came from the Red Baron. Many parts came from the '23 "T" touring kit. The finish is several coats of Starblue Fireflake over five coats of gold. Even the motorcycle is customized! Fantastic, Louie!



Each month we receive tons of letters (pounds? Ounces?) and photographs pertaining to the Model of the Month. There are a number of things that you, the entrant, can do to simplify our task.

1. Address the letter to "Brick" Price, Contest Editor, 11795 Gateway Blvd., No. 3, Los Angeles, Calif. 90064.
2. Include everything that was done to the car other than stock from the kit. Too many of our entries lack the information that others are seeking.
3. Describe the paint scheme and brand of paint.
4. If it is possible, please print or typewrite all information.
5. Keep your backgrounds simple and uncluttered.



European royalty has been riding to official functions in elegant horse-drawn carriages for centuries. And in case you haven't noticed, they still do. Of course, they are not used for basic transportation now, but they must not have heard that the horse has been replaced by horsepower.

This is the 20th century, and I think it is time they got with it, into the mainstream of the movement. Ditch the horses and up the horsepower by several hundred! Install an engine in the old coach. That would be a real engine swap!

Since there are no 1/24 scale models of a royal coach, we will have to improvise one.

The back half of Monogram's "Tijuana Taxi" looks like it could pass, but then there is the front; it would never do. However, if you make a body out of two backs from Mono-

gram's Tijuana Taxi kits, you would have a good presentable coach body. Added ornaments could come from the Monogram Boot Hill Express; roof ornaments for the roof of our Coach; and tail lights made from the Express' side lanterns. Expensive? Yes and no, not if you consider all the left-over parts you will have. And you may be able to trade for a few of the parts you

WELL,  
MAYBE NOT "ROYALTY"  
LIKE YOU'RE THINKING OF,  
BUT WE THINK MONOGRAM'S  
"TIJUANA TAXI" HAS JUST  
AS MUCH CLASS WHEN  
CONVERTED TO A  
"ROYAL T" COACH

will need from the Monogram Boot Hill Express.

Because the Tijuana Taxi is based on a design by Tom Daniel of a Model "T" we will call our car the "Royal T" Coach."

The top of the body should be straight across, and here lies the only big problem, as the doors are not a 90 degree angle to the top. As a result you can not just measure so far back from a door and draw a straight line; the line must be on an angle to the doors. Use the dimensions given in the photos. In one photo it looks like the dimensions given for cutting one body is 19/32" — it is not. The dimension should be 1-9/32". I did not make my "1" large enough, so correct this error before going any farther.

If you carefully remove the frame from the body, you could have the base for another wild model based on

## "ROYAL - T"



By Dennis Doty



this chassis.

The engine is set back in the body, and to get the rear facing seat in place without having to do extensive interior work, a different technique is used to wire the engine. This method will not harm the overall looks of the model.

Start by drilling a hole all the way through the magneto. Cut four long pieces of thread and run it through wax to remove the fuzz. Tie the strings together, in a bundle, in the center. Glue the bundle of strings to the magneto. The knot should be a tight fit in the hole in the magneto, so it might be a good idea to tie the string together first, then drill the hole for an exact fit.

After the glue has dried, set (do not glue) the magneto in place on the engine. Wire the engine now as you normally would, cutting the spark plug wires to length and gluing them to the "spark plugs" or holes drilled in the heads where the plugs should go. Completely wire the engine for added contest points.

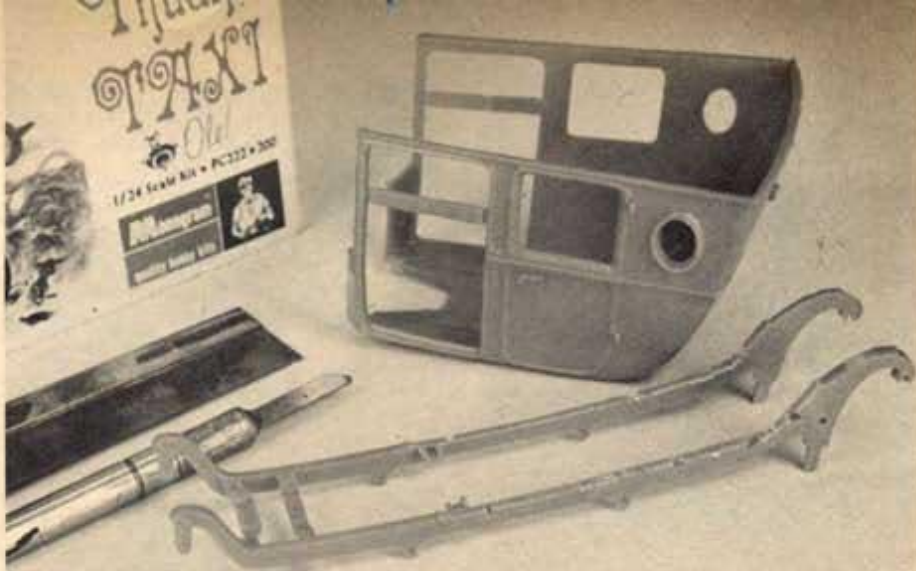
Glue the engine in position, with the magneto still just resting in place. Just before you glue the rear-facing seat in position, glue the magneto to the engine. The magneto, with the seat in position, will be tilted slightly forward, and the seat will be in a near normal position. If you don't do it this way, you will have to completely re-work the interior.

If you use a dark color for the body and roof ornaments, you should paint (by hand) the center of the ornament in a lighter color so it stands out better. The roof ornaments from Monogram's Boot Hill Express add much to the overall look of the "Royal T" Coach.

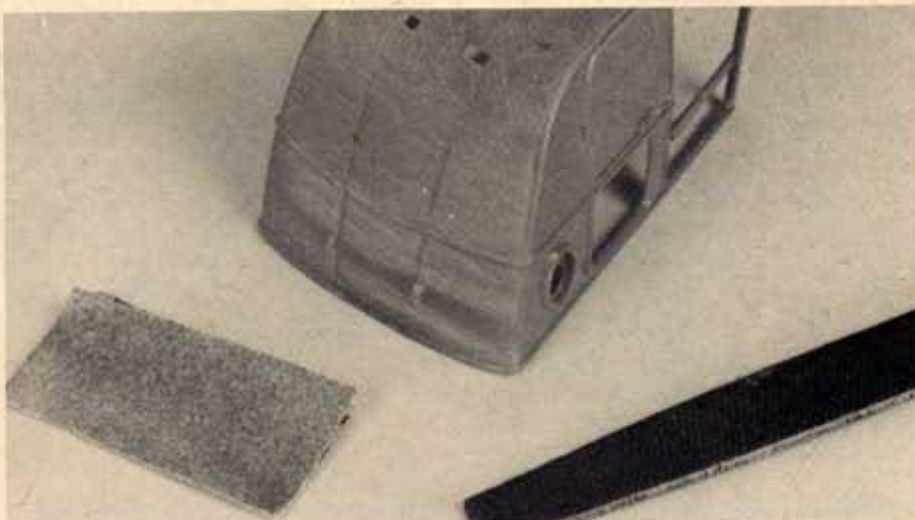
Wild show cars (real and model) are all the rage today, and Monogram's wild model car kits make it even easier to come up with an even wilder model, if you just use your imagination in combining parts from many kits. It's only as expensive as you make it.

#### FRONT

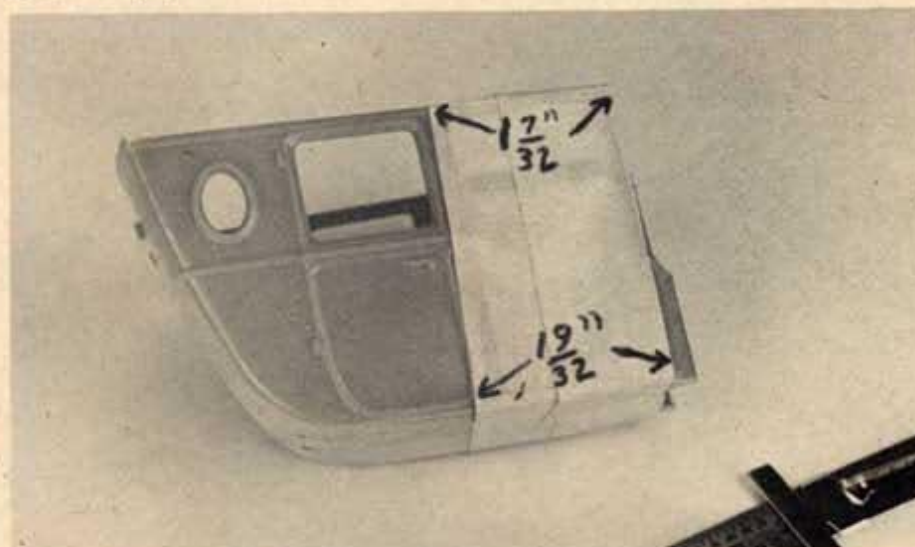
FLOORBOARD  
PATTERN  
FOR THE  
"ROYAL T" COACH



Completely remove the frame from one Monogram "Tijuana Taxi" kit. Careful cutting will get you a complete frame.

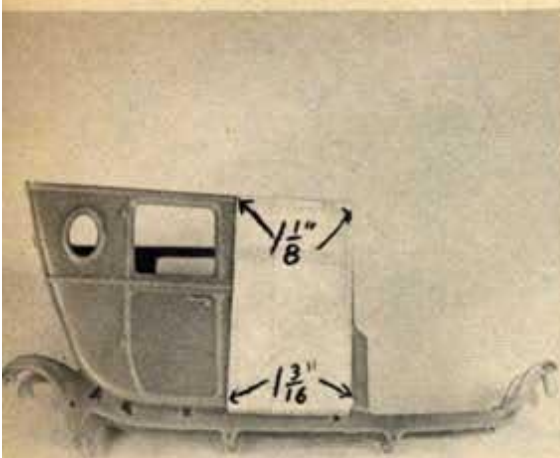


Remove all remaining traces of the frame from the body with a file and coarse sandpaper.

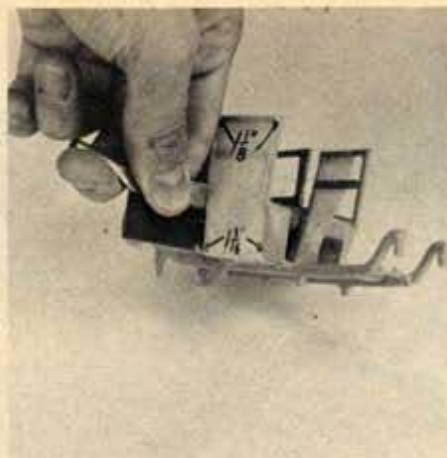


Use the dimensions in the photo to set up the first Monogram body for cutting. The bottom measurement is taken from the outside rib of the front door opening.

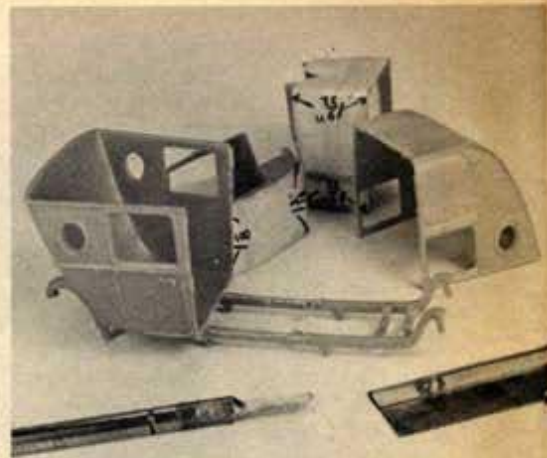




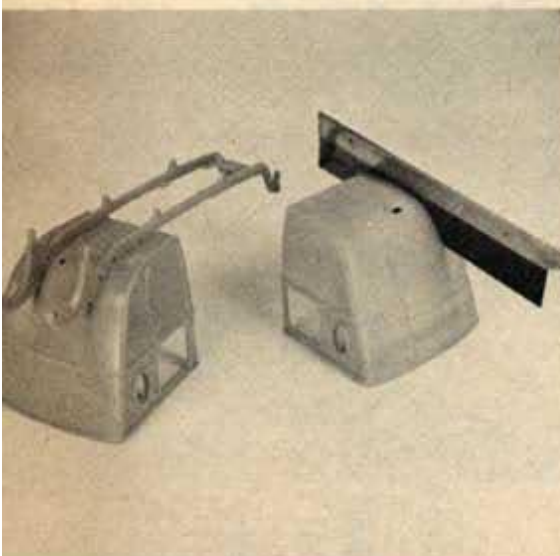
Use these dimensions to set up the second Monogram Taxi body for cutting.



After cutting through the sides of the second body, install saw as shown to separate the body from the frame (first saw the frame from the body up to the point where the two cuts will intersect).



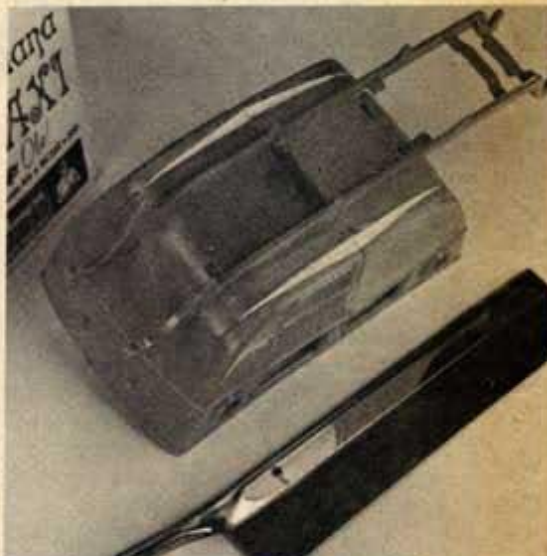
Here is what you should have after cutting. Use extreme care in making your cuts.



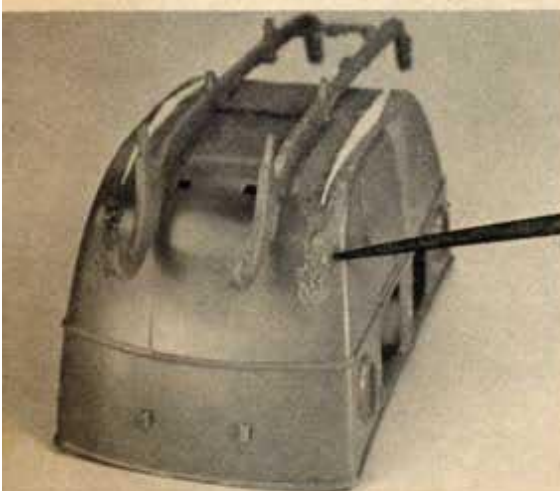
Split the back of each Monogram Tijuana Taxi body as shown.



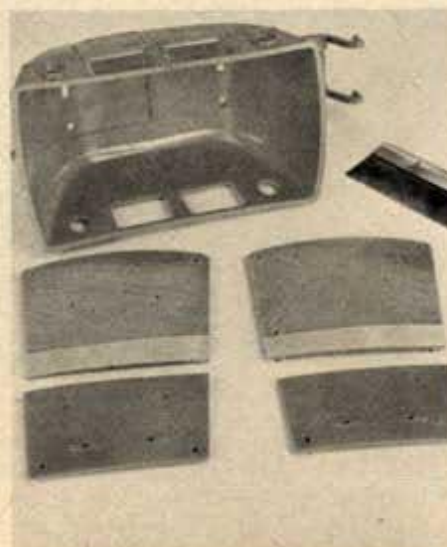
Tape the seats in place to spread the body sides. Make sure they are even (the gaps where the bodies are split).



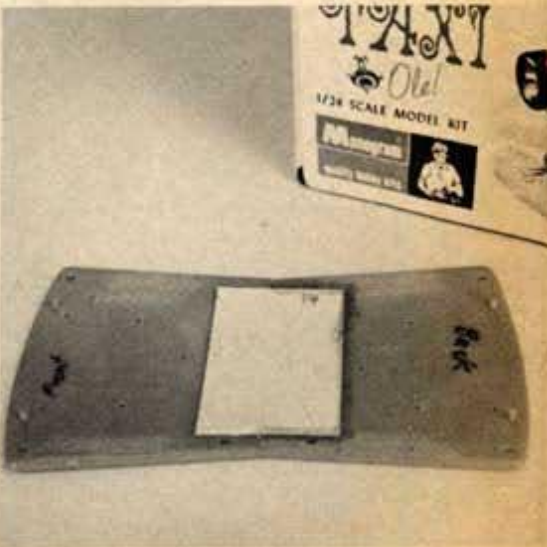
Fill the gaps in the body with plastic, cut to shape.



Fill the slits in the body with plastic shavings. Use a lot of glue, wiping away any extreme excess before it dries.



Cut the two tops to size, and file off the chicken coop bottom.

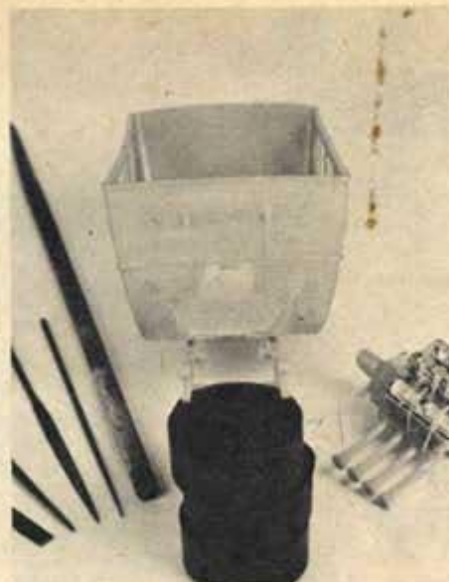


Glue the two tops together, using a piece of thin plastic for reinforcement.





Fill the "V" gaps in the roof with .080" plastic. After the glue dries, file the plastic to the contour of the top.



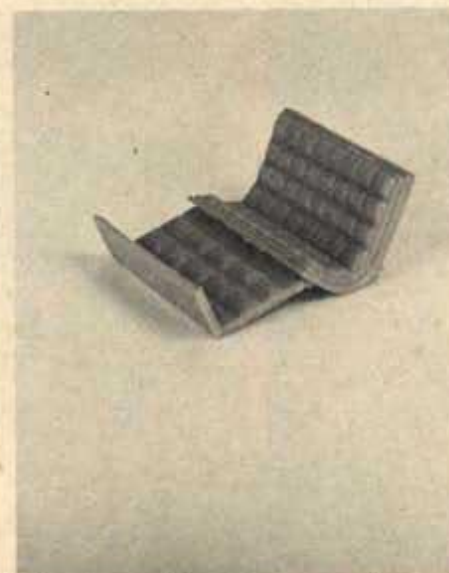
File a hole (by trial and error) shaped something like this for the engine.



Shape spacers as shown to fit the gap between the frame and the body. Again, it is by trial and error.



File a "V" in the Taxi partition and bend it to a 90 degree angle. Glue it and tape it in the correct position.



Glue the partition to a seat as shown. This is the drivers seat.



Make a steering column mount from thick plastic and glue it to the frame. Drill a hole (1/16") through the "partition" seat and the steering mount as shown.



Drill a 1/16" hole through the pitman arm and shorten the drag link to fit as shown in this photo.



Remove the mounts from two rear fenders and make new mounts from .080" plastic. Notch them as shown to fit them to the fenders and the frame. These will be the new front fenders.

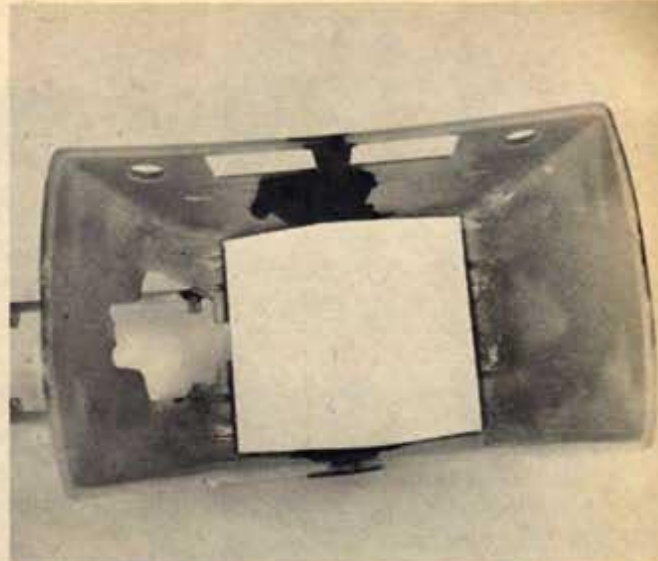


Putty all seams, sand smooth when dry, and then paint on a coat of primer. Putty any remaining imperfections.





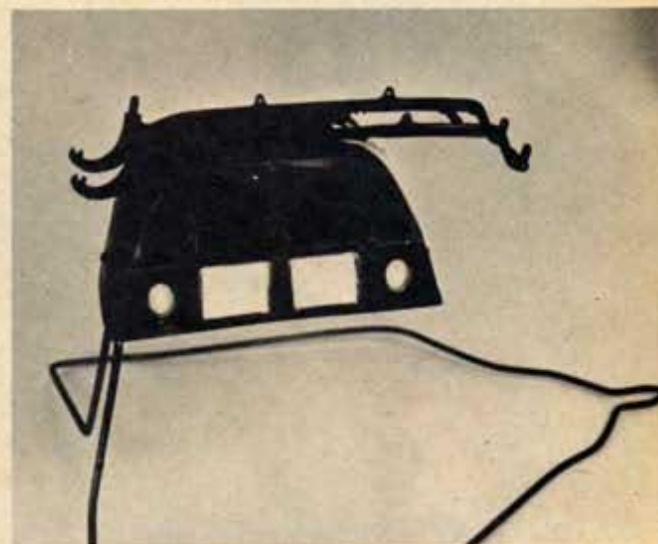
Remove the gas tank from the radiator shell and cut down an old radiator to fit the stock radiator shell.



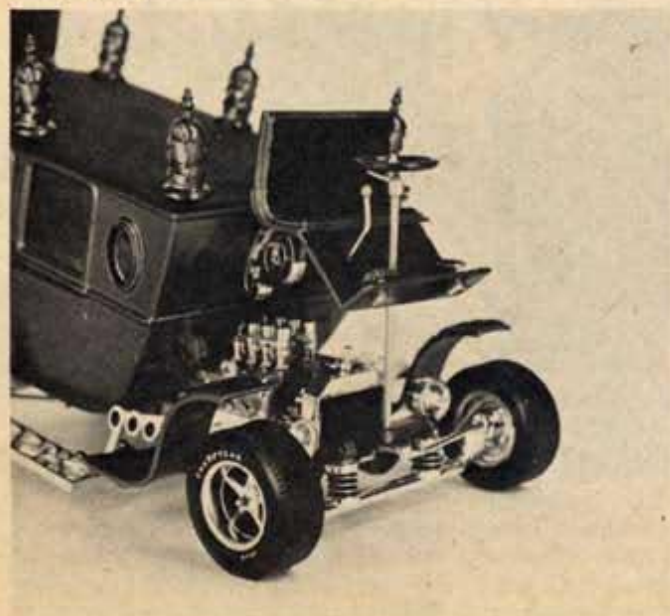
Use the pattern supplied to make the floorboard. This also raises the front seat to better clear the engine.



Wet sand the outside of the body smooth; mask off the outside of the body; spray paint the interior.



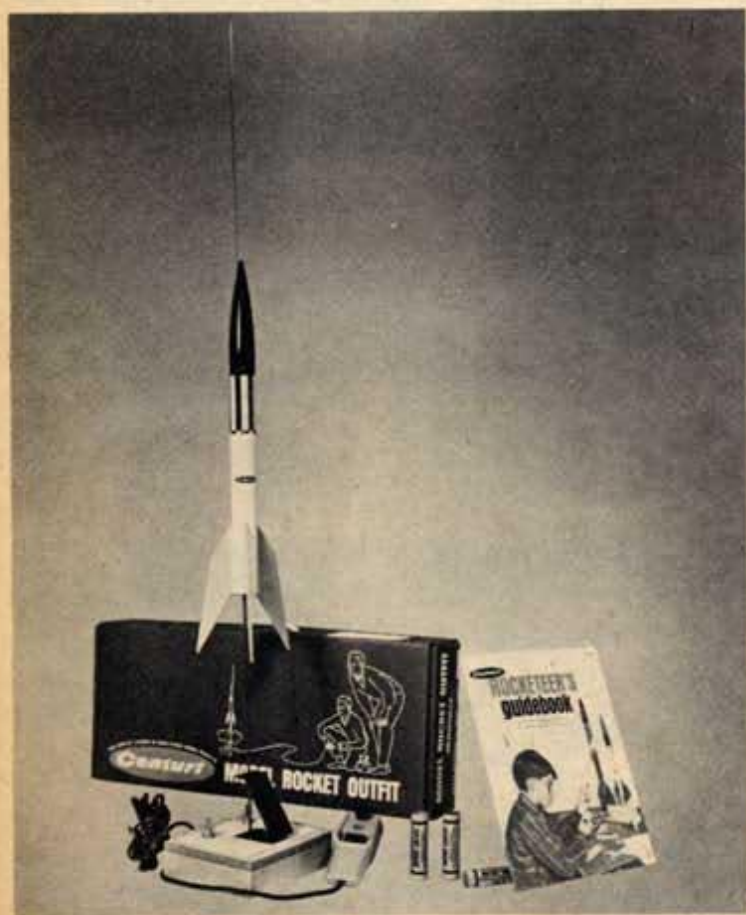
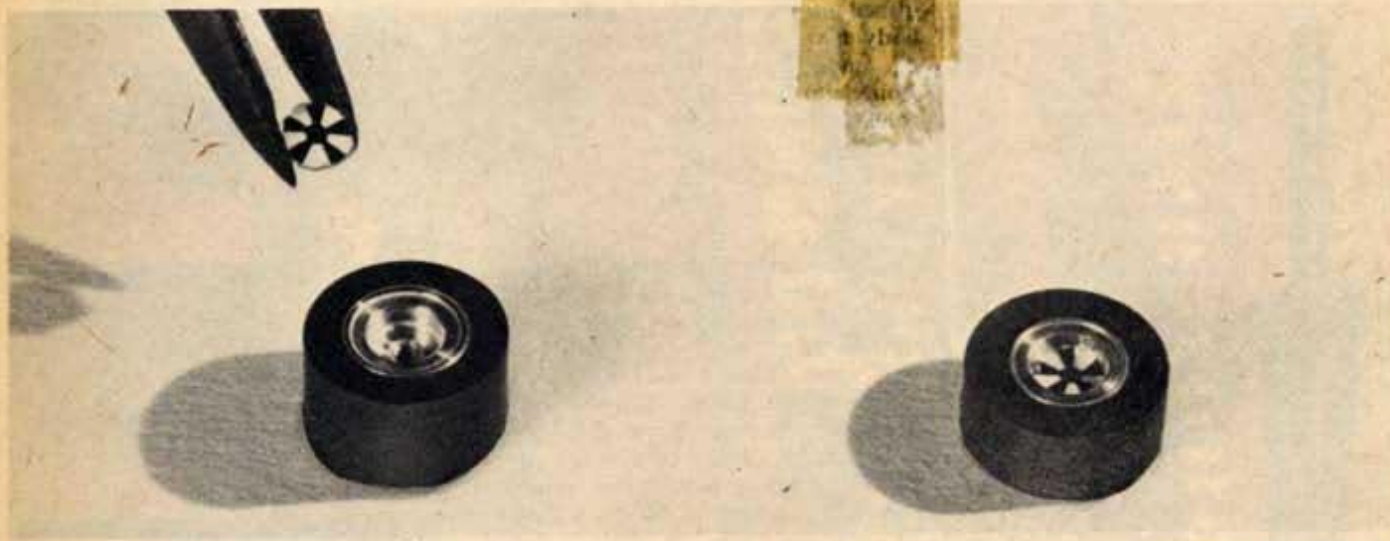
After it dries, mask off the interior; paint the outside body. Remove the tape as soon as possible.





# NEW PRODUCTS

AJ's new "mag wheel" decals will be included free in their new H.O. scale tire and wheel kits. They're beautiful and give the effect you're looking for. Check page 25 of this issue for installation instructions.



Get started in model rocketry the easy, inexpensive way, with this "starter kit" from Centuri Engineering Company. Everything you need for just \$8.95, postpaid. You can buy it at your local store, or directly from Centuri Engineering, Dept. MCS, Box 1988, Phoenix, Arizona 85001.



The best H.O. book we've seen is available from Auto World, Dept. MCS, Box 961, 701 N. Keyser Avenue, Scranton, Pa. 18508. This little book costs just 50 cents and covers the H.O. field beautifully, with contributions from such H.O. champions as Jerry Broz, Ted Johnson, Bert Haas, Carl Dreher, etc. Excellent photos, and a lot of 'em, too! If you're an H.O. buff, you won't want to miss this one.



# The Soldering Knife.



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## NEW PRODUCTS

MPC's Shalako is a winner in 1/20 scale! This groovy GT Sports Dune Buggy features a rear-mounted super-charged, air-cooled VW engine with custom exhaust and a set of special wide-oval tires mounted on deep-dished mag wheels. The one-piece GT body has a detailed "chromed" chassis, under-pan and custom bumpers, front and rear. Inside is a custom contour-shaped bucket seat; roll cage; floor shift; foot pedals; and racing steering wheel. On sale everywhere.



The H.O. battle is warming up! Aurora, long-time leader in the field of H.O. scale racing, is rising to the challenge thrown down by Tyco's new "Tyco-pro" cars. Aurora's new "Tuff Ones" sell for \$4.00, feature lightweight racing gears; non-snap silver pickup shoes; super-sponge, extra-wide tires; mag-style wheels; hand-tuned motor; independent-turning front wheels; powerful oriented magnets; track-proved gear ratio; rewind armature; and high content silver brushes. Aurora claims they're the fastest (at 760 scale mph). Time will tell as these two serious manufacturers battle it out through 1970. Offered are six cars, shown below.



CHEETAH



DUNE BUGGY



CHAPARRAL 2-F



GASSER



FORD GT



LOLA



# Monogram's HEAVY 70's

Monogram's deuce, SON OF FORD, gets it on with an injected 302 Mustang mill, tuned headers and fat slicks. Plush interior set off by custom steering wheel, tach, floor stick, heavy chrome roll bar. Moon tank up front.



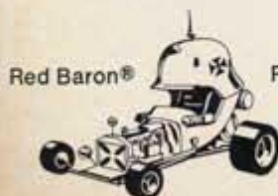
Monogram designed the BOSS "A" BONE '29 pickup to haul Scuba gear surfside. And "haul" it does, with late model Olds power, custom carb setup, B&M Torqueflight and tuned exhaust. Diving gear included.

The SWEE"T"EE from Monogram looks extra bad, but it's all show. There's a stock jug under this custom T's hollow blower. But the 327 Chevy mill is real enough for street encounters. Extra parts included for variations.



They don't come any cleaner or meaner than Monogram's STREET FIGHTER by West Coast designer, Tom Daniel. A super sanitary '60 Chevy Panel with Z-28 Camaro mill under a tilting nose unit. Seethru roof window shows off detailed interior.

See the Monogram 1/24 scale HEAVY 70's plus Tom Daniel's wacky Red Baron®, Rommel's Rod and Tijuana Taxi at your favorite store today.



Red Baron®



Rommel's Rod



Tijuana Taxi



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# Climb inside and see why Tiger I is the most authentic tank model ever made

10 10 10 10 10 10 10 10

Model for photograph cut away to show interior detail. Your kit, of course, will not be cut away.

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